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AGRICULTURAL MARKETING SERVICE



Organization *and* Functions

U. S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

U.S.D.A.
L.I.P.

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UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
WASHINGTON, D. C.

This booklet is intended as a guide to the organization and functions of the Agricultural Marketing Service.

It has been prepared primarily for use by the staff, in the field and in Washington. Though the underlying principles, procedure, and objectives of our work are similar, many of our responsibilities are so exacting that a high degree of specialization in personnel is required. I hope, therefore, that our entire personnel will make every effort to acquaint themselves with, and have a working knowledge of all major activities of the organization. Only in this way can we develop and maintain a well-coordinated and efficient service organization.

To others who may read this booklet, we hope that it will impart a clearer understanding of our services and a knowledge of the assistance the Agricultural Marketing Service is in a position to render.

C. West Seaman

Chief.

ADMINISTRATIVE ORGANIZATION

AGRICULTURAL MARKETING SERVICE
U.S. DEPARTMENT OF AGRICULTURE

ADMINISTRATIVE

KITCHEN, C.W. CHIEF
REED, H.E. ASST. CHIEF
HUGHES, F.J. BUSINESS MANAGER
NEWELL, S.R. ASST. TO THE CHIEF
FITS, H.F. SR. ADM. OFFICER

PACKERS AND STOCKYARDS

MILLER, F.W. IN CHARGE

WAREHOUSING

YOHE, H.S. IN CHARGE

AGRICULTURAL STATISTICS

CALLANDER, W.F. IN CHARGE

BUSINESS ADMINISTRATION

HUGHES, F.J. IN CHARGE

FRUITS AND VEGETABLES

MEAL, W.G. IN CHARGE

DAIRY AND POULTRY PRODUCTS

POTTS, R.C. IN CHARGE

ENFORCEMENT OF FEDERAL SEED ACT

DAVIDSON, W.A. ACTING IN CHARGE

COTTON MARKETING

ROBINSON, C.H. IN CHARGE

HAY, FEED, AND SEED

WHEELER, W.A. IN CHARGE

GRAIN

PARKER, E.C. IN CHARGE

LIVESTOCK, MEATS, AND WOOL

WHALIN, C.V. IN CHARGE

TOBACCO

GAGE, C.E. IN CHARGE

MARKETING INFORMATION

SANDSTROM, MARVIN M. IN CHARGE

AGRICULTURAL MARKETING SERVICE

-- Organization and Functions --

The Agricultural Marketing Service is a service and regulatory agency, concerned with the various phases of marketing farm products.

Proficiency in production and proficiency in marketing go hand-in-hand toward a successful farm enterprise. And the problems in both fields must be attacked with equal vigor and forcefulness in the march toward a more abundant agriculture and the realization of a balanced national economy. A major role of the Agricultural Marketing Service in working toward these broad objectives is that of fact-finding and fact-disseminating. The availability of fundamental economic data is essential to an intelligent appraisal of the factors of supply and demand. They are of basic importance in the formulation of production and marketing plans and programs, by private as well as Federal and State agencies.

Every industry recognizes the necessity of keeping informed, and the larger the group the greater is the task of gathering and distributing pertinent information. In the case of agriculture, the job is not minimized by the fact that there are over 6-1/2 million farmers widely scattered over the country. Each has a right to expect an opportunity to be well informed.

The activities of the Agricultural Marketing Service fall within five broad categories: (1) the collection and

dissemination of crop and livestock production statistics; (2) the gathering and reporting of current market information from terminal markets, shipping points, and producing sections; (3) standardization and inspection to provide a common language in merchandising and a uniform yardstick for measuring gradations in quality of farm and food products; (4) research and demonstration in standardization, grading, preparation for market, handling, and other related phases of marketing; and (5) the administration of "rules of fair play" in the merchandising of farm commodities.

Relative to any major agricultural commodity, these unified activities service all groups -- producers, distributors, and consumers -- from the time production plans are being made down through the planting, harvesting, and marketing stages and, in some cases, until the product actually reaches the consumer's table. Millions of dollars worth of agricultural products are sold each year on the basis of official estimates of crop and livestock production and the current market news reports. With this factual information, currently and widely disseminated, the handling of agricultural products can be done on much smaller margins and with less violent price fluctuations.

The services are of such magnitude as to be impracticable of undertaking by a private agency. They have been delegated by Congress to be performed completely and impartially by a Federal agency. And the Secretary of Agriculture has designated the Agricultural Marketing Service as the agency to conduct them. Each is based on the everyday, practical needs of farmers and consumers.

Agricultural Statistics

The Agricultural Marketing Service collects, compiles, summarizes, and interprets a great quantity of statistical data relating to agriculture. One phase of this work, the collection of statistics of agricultural production and the estimating of acreages planted and prospective yields, has been an important activity of the Department since its inception. This activity -- known throughout the Nation as the crop and livestock reporting service -- had its beginning more than 75 years ago. In May 1863 approximately 2,000 farmers in 22 northern states were asked to make observations with regard to the number of acres sown to major crops and as to crop prospects.

The motive behind the establishment of the service was to place farmers on an equal bargaining basis with the buyers of their products. The farmer could not conceal his crops, nor their promise of heavy or light yields. It was impossible for him to get out over the country to see for himself what the prospects were outside of his own relatively small locality. Furthermore, unlimited opportunity existed for misinformation on crop prospects to be circulated and accepted as the basis for trading.

Knowledge of supplies available and supplies to come is necessary to the plans of both farmers and businessmen. General realization of this fact has resulted in a gradual expansion of the service until now estimates of acreage, yield, production, farm utilization, and sales are reported for more than 100 crops. The data also include figures on numbers of livestock, on milk and egg production and

consumption, on prices paid and received by farmers, on farm wages and farm labor, and on the movement, utilization, and stocks of various farm products. The crop and livestock reporting service for many years has been regarded as the most adequate and accurate of its kind in the world.

The estimates of crop production and numbers of livestock are based on returns received from more than 200,000 individual farmers -- each summarizing conditions on his own and neighboring farms. These farmers report voluntarily. Their combined testimony, originating on the field of action, gives a true picture of crop prospects.

To collect and compile this information 41 field offices are maintained. Each office is in charge of a trained statistician with two or more technical assistants and clerks. Most of the 10 million schedules or questionnaires mailed out each year are handled by these field offices. The summaries are sent to Washington, where they are reviewed by the Crop Reporting Board, and then assembled and issued for the United States and for individual States and regions.

The production estimates are not enumerations. They are systematic attempts, based on samples or other evidence to estimate the probable outturn of the crop. Subsequent changes in conditions are taken into account in later reports. Elaborate systems of checks and balances have been developed to insure unbiased reports.

People everywhere have become accustomed to accepting these periodic reports without realizing the extent of the task of compiling and interpreting the information. But growers, distributors and consumers, do realize that the information is indispensable. Issued, in many cases, far in advance of the actual time of harvesting or marketing, they are used by all groups as a guide in planning future operations.

Market News

As a complement of the Nation-wide crop and livestock reporting system, day-to-day reports on supply and demand conditions at important markets, the country over are disseminated for more than 100 agricultural commodities. The information is obtained at terminal markets and shipping points, and from producing sections. It covers movement, market supplies, quality, and prices of livestock, meats, wool, fruits, vegetables, dairy and poultry products, grains, hay, seeds, feedstuffs, cotton and cottonseed, tobacco, rice, honey, and miscellaneous products.

For nearly 25 years this information has been made available each market day to the general public. Though the service is now usually taken for granted, it has become an indispensable factor in the American system of marketing. Reliable market news is now practically a necessity in the operations and plans of everyone who produces, buys or sells.

The basic information is collected in numerous ways -- by interviews with buyers and sellers in the markets during trading hours, by telegraphic reports from railroads on shipments to and arrivals at important markets, by reports on truck arrivals at major markets, by warehousemen who report stocks in storage, by inspecting records made available by individuals and agencies engaged in buying and selling, and by numerous contacts with other groups.

To distribute the information in time to be of practical use, the Agricultural Marketing Service maintains an extensive leased wire system. More than 7,500 miles (airline) of leased telegraph wires make it possible to send the material promptly from one market to another. Information received at any one market is quickly made

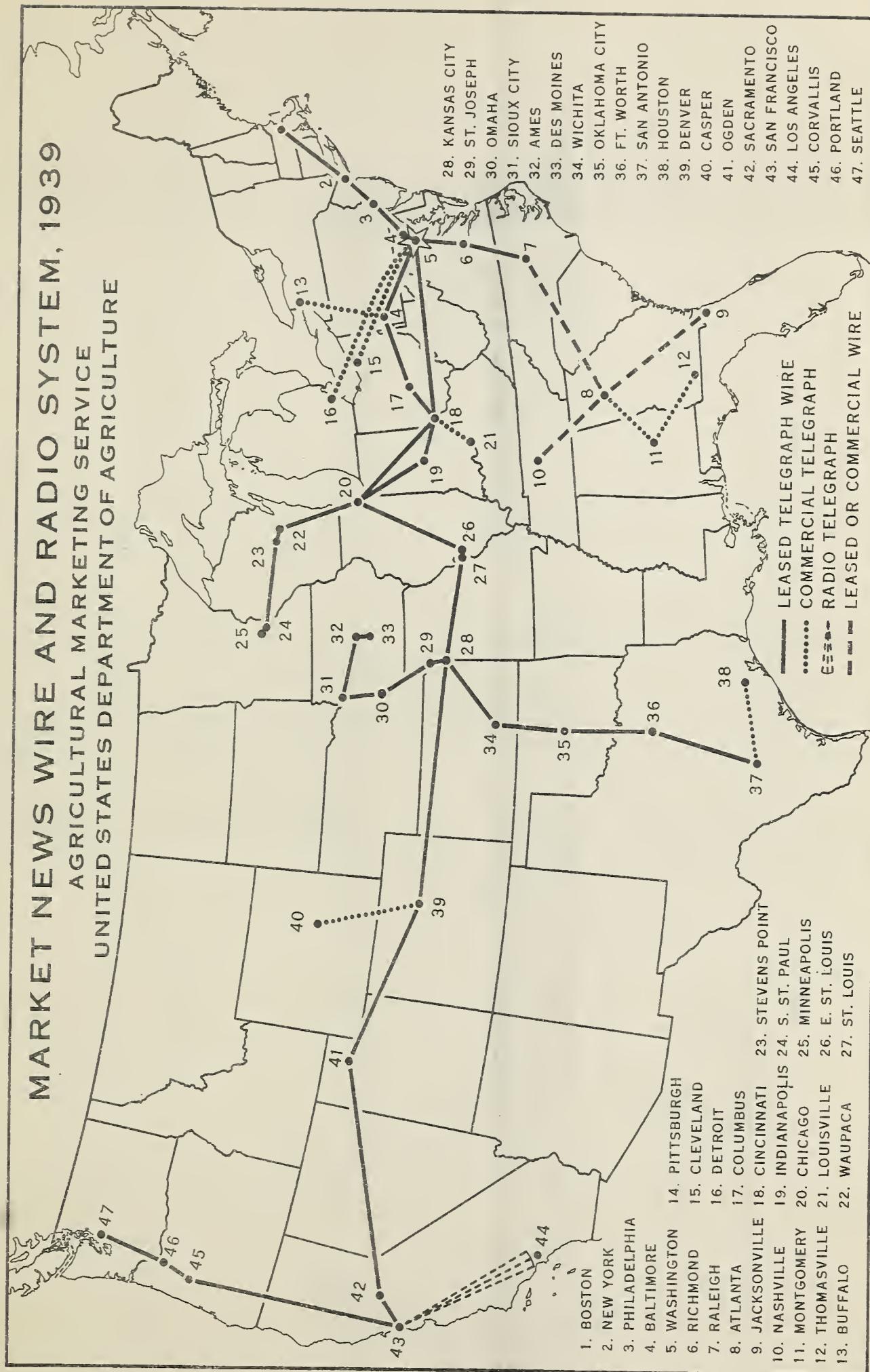
available to the public by means of radio, telephone, press and mail, and by posting on bulletin boards. It is further distributed widely through trade and farm publications, commercial and financial institutions, and other agencies.

Approximately 350 radio stations are regularly broadcasting current market news as compiled by the commodity reporters. A number of the stations supply remote control facilities which enable the reporters to broadcast direct from the market. Some of the stations provide 3 to 5 scheduled reports daily in order that producers in the territory they serve may be kept fully informed on the changes and trends in the market.

Such blanketing of the entire country has decreased the disadvantage of the individual producer and the small shipper who are in competition with the stronger commercial organizations better capable of obtaining information for themselves through far-flung trade connections. It helps to promote orderly marketing. It facilitates and equalizes distribution, discourages the dissemination of fictitious and misleading market information by unscrupulous persons, and aids economic research looking toward improved marketing methods. The recording of the day-to-day happenings in permanent form provides a continuous story for use by marketing specialists and economists in making studies and analyses of production, demand, prices, and distribution.

The Federal Government is the only agency in a position to furnish such a service impartially to all concerned on commodities in which there is a Nation-wide interest.

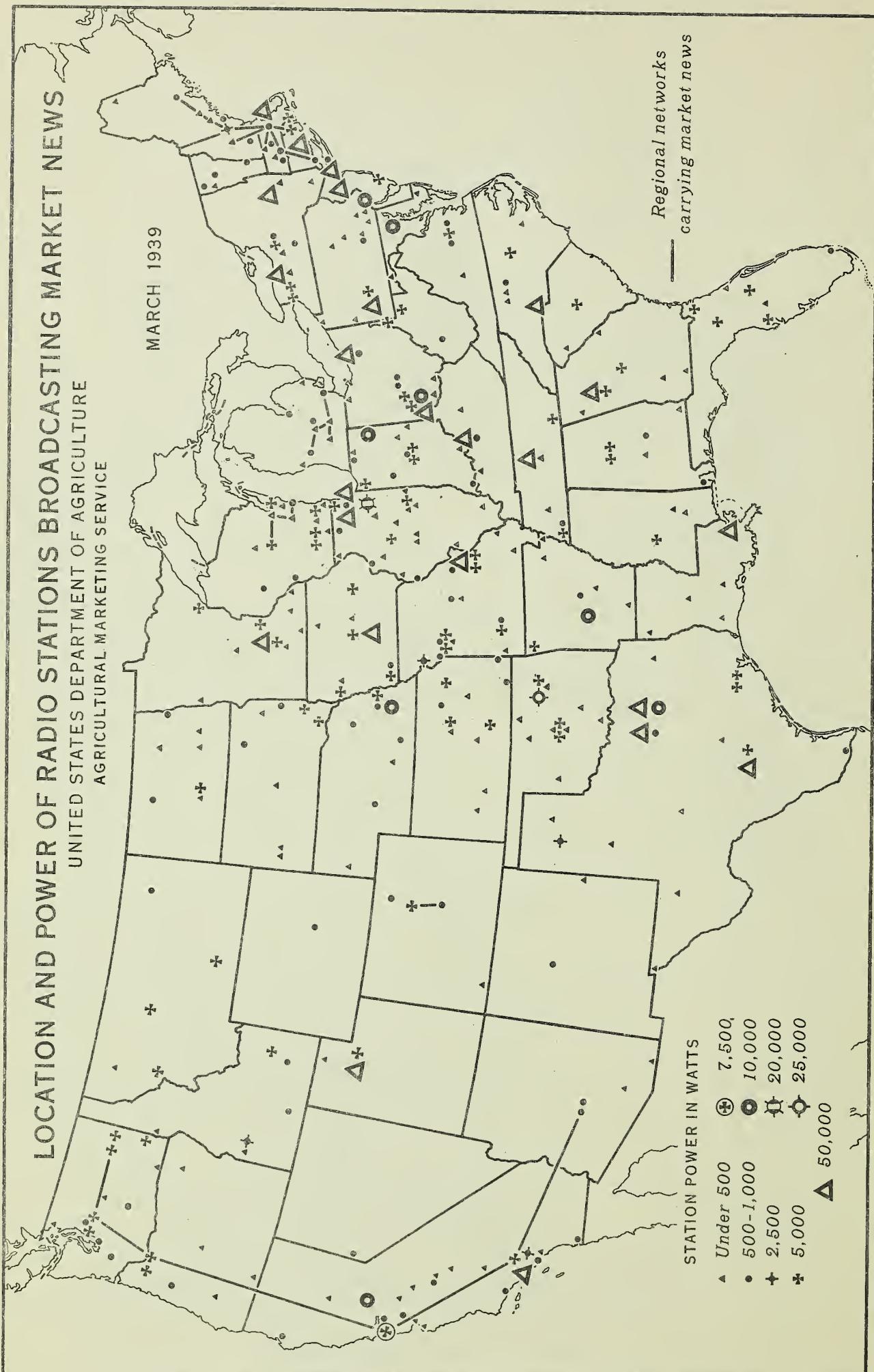
MARKET NEWS WIRE AND RADIO SYSTEM, 1939
AGRICULTURAL MARKETING SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE



U.S. DEPARTMENT OF AGRICULTURE

NEG. 5

AGRICULTURAL MARKETING SERVICE



U.S. DEPARTMENT OF AGRICULTURE

NEG. 6 AGRICULTURAL MARKETING SERVICE

Standardization

Standardization and inspection of farm products are among the principal functions of the Agricultural Marketing Service -- functions that root deeply into the needs of American agriculture. They are fundamental to efficient marketing and distribution.

Standards have been established for grain, cotton, tobacco, 56 of the fruits and vegetables, and for most of the other farm products. Some of these standards are mandatory if the products are sold by grade and are shipped in interstate or foreign commerce. This is true for grain and cotton. Use of the standards for most other commodities is permissive. The chief value of uniform grades is to provide a basis for merchandising according to quality.

Standardization springs from a desire of producers, distributors, and consumers for an understandable and uniform yardstick by which to measure gradations in quality -- a gauge to serve as a basis for buying and selling. Before the formulation of Federal standards about 25 years ago, and before they were made generally available, certain individual States, trade associations, and chambers of commerce had developed their own local standards. Much confusion resulted. The multiplicity of standards in use at that time, and their utter lack of uniformity caused endless misunderstanding, countless disputes, and needless loss to producers, dealers, and consumers. Specialization of production, the broadening of markets, and the greater discrimination in consumer demand intensified the problem. The resultant demand for Government standardization and for certification of quality and condition was heightened

by expressed needs for more uniform price quotations at the different markets and for broader sources of credit for warehousing farm products.

The U. S. Cotton Futures Act was passed in 1914 requiring the use of Federal standards in futures trading in cotton and providing that cotton tendered in settlement of futures contracts must first be classed by official representatives on the basis of the standards established by the Department. The Grain Standards Act was passed in 1916 authorizing the Secretary of Agriculture to establish official standards for grain and requiring their use in interstate and foreign commerce when grain is sold by grade. The U. S. Warehouse Act also was passed in 1916, requiring that grades be stated on Federal warehouse receipts. Somewhat later, in 1923, the Cotton Standards Act was passed. In 1928 an Act was passed authorizing additional work in the standardization of wool. In 1929 the Tobacco Stocks and Standards Act was passed which, although this was not its primary purpose, authorized the Secretary of Agriculture to establish standards for the classification of tobacco. And the Tobacco Inspection Act of 1935 provides for a mandatory and free inspection service at designated auction markets.

These various statutes, together with authority carried annually in the appropriation act for the U. S. Department of Agriculture to formulate standards for farm products and to inspect and certify to their quality and condition, furnish the background for the standardization and inspection work of the Agricultural Marketing Service.

In providing a common language and a basis for market quotations, farm-product standardization and inspection fulfill many needs. They eliminate the necessity of personal inspection of the product by the buyer before the purchase is made; they provide a basis for price adjustments if a lower grade is delivered than that specified; they protect the shipper against the refusal of a product that is of the specified grade. To the producer they afford a quality basis for payment, and a check on the quality of his production. They enable producer-marketing organizations to pool the products of individual producers on the basis of quality. To processors and distributors they provide a basis for the settlement of disputes regarding quality or condition, promote a fair and honest basis for competition on contract bids, and permit the carrying of grade through to the consumer. Warehouses are provided with a basis for making loans.

When carried through, they provide consumers with definite quality guides in purchasing. Consumers can be assured of obtaining a product of a grade that is in line with the price paid. Better satisfaction usually results. Confidence is promoted. Consumption may be stimulated.

Three grades -- A, B, and C -- have been developed for each of 26 canned fruits and vegetables. This work was started less than 8 years ago, but the use of these grade designations on individual labels is growing rapidly. As consumers become better informed, they refuse to pay a first-grade price for a third-grade product, as is often the case when no grade information is available to them.

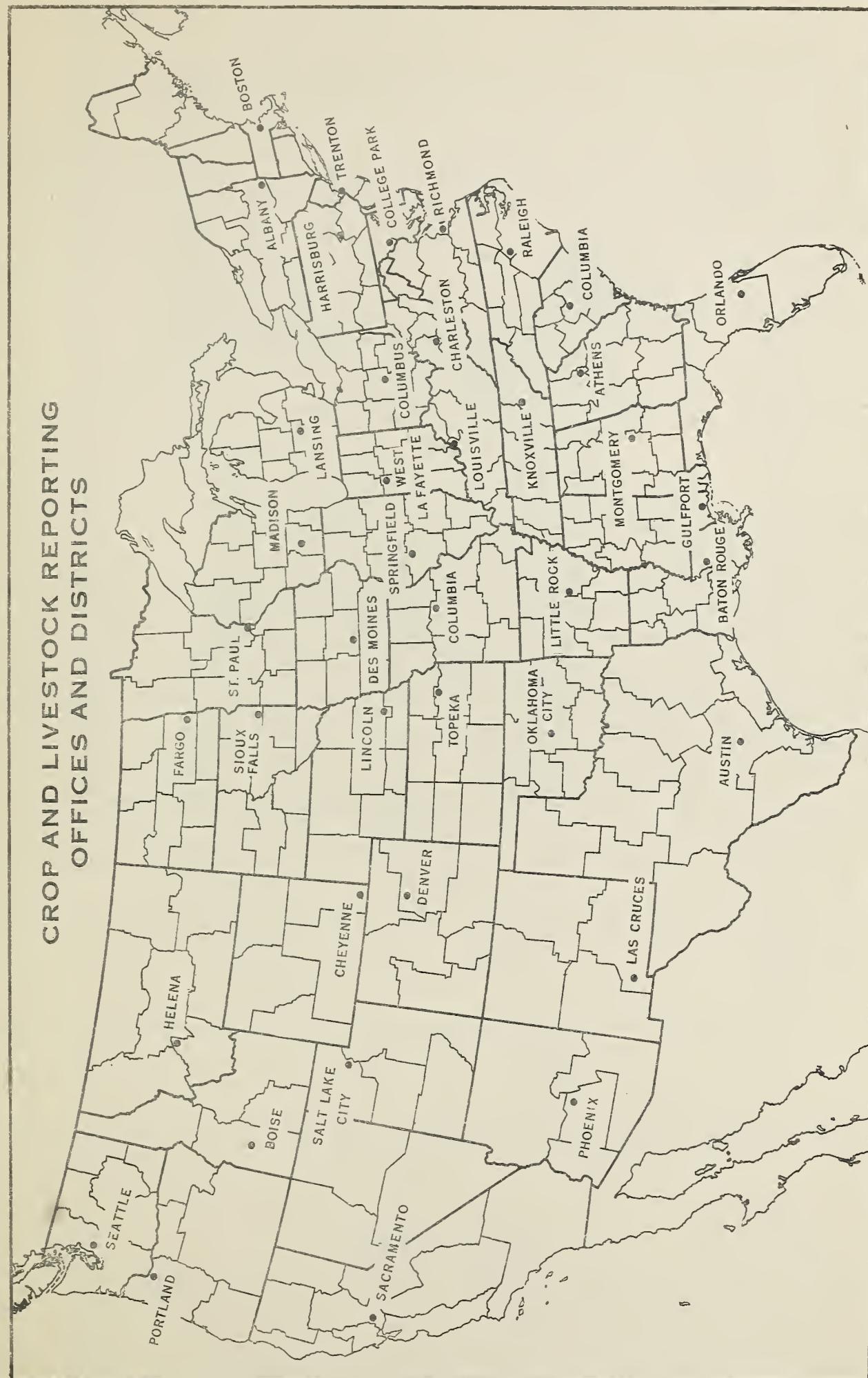
Grading and Inspection

Grading and inspection form the action phase of the standardization program.

Inasmuch as the standards for farm products must cover significant gradations in quality, they are not like the minimum standards established under the Food and Drugs Act. They must go further. They must differentiate the full range of commercial quality in a supply to afford a basis for trading in all qualities of the product. In evaluating a product to the grower, to the processor or manufacturer, and to the consumer, the standards must be uniform, on a Nation-wide scale. They cannot vary from region to region, nor from market to market. Neither can they be changed from season to season to conform to the quality of the crop. They are uniform in reality, however, only to the extent that they are interpreted accurately and applied consistently. This necessitates centralized training and supervision of the inspectors who apply the standards.

The inspection service has become thoroughly integrated in the marketing process. It is available in many of the principal producing areas and receiving centers on fruits and vegetables, hay, beans and grain, and other products. A permissive grading service is conducted on dairy and poultry products, cotton, rice, meats, wool, and canned fruits and vegetables. In the case of meats, poultry, eggs, and butter, programs have been developed for carrying the official grade designation through the trade channels to the consumer.

CROP AND LIVESTOCK REPORTING
OFFICES AND DISTRICTS

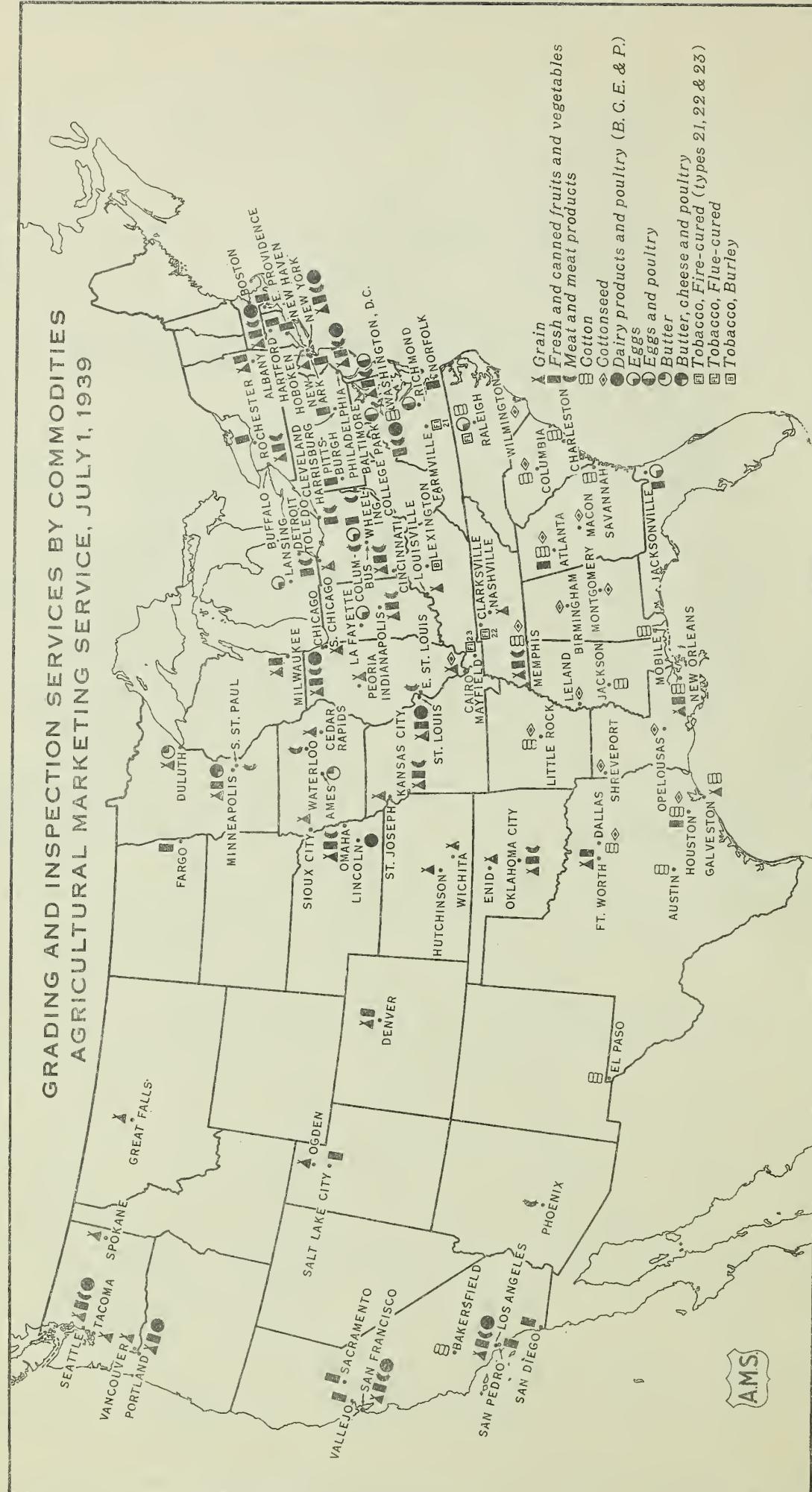


U. S. DEPARTMENT OF AGRICULTURE

JULY 1939

NEG. 11 AGRICULTURAL MARKETING SERVICE

**GRADING AND INSPECTION SERVICES BY COMMODITIES
AGRICULTURAL MARKETING SERVICE, JULY 1, 1939**



U. S. DEPARTMENT OF AGRICULTURE

NEG 2 AGRICULTURAL MARKETING SERVICE

Mandatory and free inspection is provided at about 35 auction tobacco markets where at least a two-thirds majority of the voting growers who patronize the market have expressed a desire for the inspection. Free cotton classification is provided, upon request, to groups of producers organized for the improvement of their cotton.

The marked increase in quantities of farm products inspected and graded in recent years shows a growing understanding and acceptance of the national standards.

A few years ago standardization and inspection work was limited almost entirely to facilitating the movement of commodities in wholesale channels. In recent years, however, retail and consumer organizations have taken a great interest in standardized grades. In 1938, approximately 320 million pounds of butter were officially graded. More than 85 million pounds were sold in consumer packages, each with a "certificate of quality", showing that the butter was officially graded and giving the score at the time of grading. Nearly 718 million pounds of meats, mostly fresh beef, were graded, and the carcasses were so stamped that each retail cut carried the grade name for the information of consumers. Nearly 27 million pounds of dressed poultry were graded and over 43 million pounds were inspected for condition and wholesomeness.

Demonstrations

The increased interest shown by growers, consumers, and retail organizations is attributed in part to the educational and demonstration programs conducted in cooperation with State agencies and the Federal Extension Service.

During the past 3 years approximately 100,000 tobacco growers have been reached through demonstration programs dealing with better methods of preparing tobacco for market. Each year about 100 grain-grading schools, attended by approximately 10,000 producers, shippers, and dealers, are held in the important grain-producing and shipping states. Federal-State demonstration programs also are conducted in the case of other commodities. The broad objectives of these programs is to acquaint the general public with the grades and to bring to the attention of producers and shippers the marketing practices that function to maintain high quality. Indirectly the educational activities serve to improve the quality of marketings, to encourage the use of U. S. standards, to help producers interpret market reports more intelligently, and to increase returns to producers.

Research

The research work of the organization forms the basis of its service activities. Grade standardization research centers about the development of standards for each product. It involves the determination of all the factors and attributes inherent in a product which may in any way affect its value or relative desirability. After these factors are ascertained and isolated they need to be appraised not only individually but in relation to each other so as to arrive at their relative importance in determining the quality of the product. In making these appraisals correct methods of evaluation need to be developed. Attention also is given to correct methods of grade identification through accurate and clearly outlined specifications expressed in simple terminology.

Numerous laboratory studies are carried on, such as spinning and ginning tests of various types and grades of cotton, milling and baking tests for grain, wool shrinkage tests, slaughter tests of different grades and weights of livestock from different areas of the country. Studies are constantly in progress to improve the accuracy of crop forecasts. Recent experiments include a pre-harvest survey of the wheat crop to make possible advance determinations of grain quality, protein content, and test weight per bushel, and a study as to the effects of soil moisture on acre yields.

Administration of Laws

The Agricultural Marketing Service is charged with the administration of the Cotton Standards Act, Cotton Futures Act, Grain Standards Act, Packers and Stockyards Act, Perishable Agricultural Commodities Act, Standard Container Acts, Produce Agency Act, Export Apple and Pear Act, Dairy Exports Act, The Warehouse Act, the Tobacco Inspection Act, and the Federal Seed Act.

In addition, market "service" acts include the Cotton Grade and Staple Statistics Act, Tobacco Stocks and Standards Act, the Peanut Statistics Act, the Wool Standards Act, and the Farm Products Inspection Act as provided for in the annual agricultural appropriation acts.

The Cotton and Grain Standards Acts trace back nearly 25 years. As the processes of marketing became more and more complex, an increased demand occurred for certain improvements. Additional legislation has followed. Economic and practical analyses, however, have preceded the formulation of the regulations under the acts entrusted to the Agricultural Marketing Service for administration. Current problems brought to light in the course of administration are closely studied.

The Perishable Agricultural Commodities Act has been in force since 1930. Serving toward the suppression of unfair and fraudulent practices in the marketing of fruits and vegetables in interstate and foreign commerce, it has become an integral part of the fruit and vegetable industry. The Act requires the licensing of all commission merchants, dealers, and brokers. More than 20,000 licenses have been in effect during the past year.

The purpose of the Packers and Stockyards Act, passed in 1921 is to prevent and correct irregularities and abuses that may arise in the operation of the stockyards and meat-packing industries. Unfair, unjustly discriminatory or deceptive practices are violations of the law. Millions of dollars are saved livestock producers through the administration of this law. In 1935, the Act was amended to extend regulation to the rates and practices of persons engaged in marketing live poultry in certain cities and markets. The purpose of the amendment is to prevent unfair practices and unreasonable charges which cause losses to producers and which unduly enhance prices to consumers.

The U. S. Warehouse Act provides for the licensing of warehouses for the storage of farm products, and the supervision of the activities of licensed warehousemen. Under the Federal Seed Act, fraudulent midbranding of seed in interstate commerce is prohibited, and imported seed is tested to determine whether it meets import requirements as to purity, germination, and weed seeds.

Recognition of the services rendered under the administration of these Acts has been minimized in recent years when the Nation's chief efforts have been focused on the solution of accumulated problems

resulting from the World War. Nevertheless, the service and regulatory functions have gone on with steadily increasing progress. The number of individuals and agencies served has grown tremendously during the past decade.

Organization

The establishment of the Agricultural Marketing Service was contemplated in the Departmental reorganization program announced October 6, 1938. In the consolidation and coordination of marketing work, then in seven agencies, the Agricultural Marketing Service was set up as one of five units responsible to the Secretary of Agriculture through a Director of Marketing and Regulatory Work. The primary purpose of the reorganization into these units under an over-all Director is to integrate the types of activity in such a way that the same concentrated attention may be given to marketing as is devoted to production and conservation, and to give the persons who deal with the marketing agencies a central point of contact.

In the Agricultural Marketing Service was placed: (1) from the Bureau of Agricultural Economics -- marketing research, service and regulatory work in connection with cotton, dairy and poultry products, fruits and vegetables, grain, livestock, meats and wool, hay, feed, and seed, warehousing, tobacco, market news service, and all of the work on crop and livestock estimates; (2) from the Bureau of Animal Industry -- administration of the Packers and Stockyards Act; (3) from the Bureau of Plant Industry -- administration of the Federal Seed Act; and (4) from the Bureau of Dairy Industry -- administration of the Dairy Exports Act.

Legal sanction to the organization, to become effective July 1, 1939, was provided by the passage on June 30, 1939, of the Agricultural Appropriations Act for 1940. The staff has approximately 2,750 employees, nearly 2,000 of whom are located in the field.

For administrative purposes, the Service is comprised of commodity and functional divisions. The commodity divisions are: Cotton Marketing; Dairy and Poultry Products; Grain; Livestock, Meats and Wool; Hay, Feed, and Seed; and Tobacco. Functional divisions include: Agricultural Statistics; Enforcement of Federal Seed Act; Administration of U. S. Warehouse Act; and Administration of Packers and Stockyards Act.

* * *

A G R I C U L T U R A L S T A T I S T I C S

Division of Agricultural Statistics

W. F. Callander In Charge

The work of the Division of Agricultural Statistics (as summarized on the following page) had its origin 100 years ago -- in 1839, when Congress appropriated \$1,000 to the Patent Office to distribute seeds and collect agricultural statistics. Beginning in 1841, the Commissioner of Patents issued annual reports on crop production.

One of the first units set up in the U. S. Department of Agriculture, established in 1862, was a Division of Statistics. Its responsibility was to collect information on acreage, condition, and production of crops. The first crop report by the Department was issued in 1863. Since then, the service has been continuous, with steady expansion.

(In 1903, the Division became a separate Bureau, the Bureau of Statistics. Its name was changed to Bureau of Crop Estimates in 1914. In 1921 it was combined with the Bureau of Markets, and in 1922 became the Division of Crop and Livestock Estimates of the Bureau of Agricultural Economics. It was designated the Division of Agricultural Statistics in 1939.)

The Division is responsible for the collection and publication of a wide variety of agricultural statistics covering most phases of production and marketing. In addition to the Washington organization, 41 field offices are maintained, in most cases in cooperation with State departments of agriculture. The basic information is obtained in most part from the thousands of voluntary, unpaid crop reporters, located in every agricultural county in the United States.

Reports Give Wide Coverage

Crop and livestock reporting is the oldest continuous activity of the United States Department of Agriculture. The collection of such statistics was started at the behest of farmers, who felt that they must have official information as to crop prospects and production to assist them in their production and marketing operations, and to protect them against misleading information circulated widely by buyers and speculators.

A great expansion in the work has taken place since the first Department of Agriculture crop report -- covering only the condition of major crops -- was issued in 1863, more than 75 years ago. The demand for such expansion has come not only from farmers and their organizations but from marketing agencies, railroads, credit agencies, economists, legislators, administrators of state and national farm programs, and others.

Much of the agricultural information desired in detail for present-day operations of farmers, businessmen, etc., is not yet provided. The coverage, however, is extensive. The type of information gathered and disseminated may be broadly classified in 11 general groups:

- (1) Estimates of acreage, yield, production, and value of practically all crops grown in the United States; monthly forecasts of yield and production for many of these crops during the growing season; stocks estimates for a number of crops and sales and utilization estimates for individual crops. One or more reports a year are issued on each of more than 100 crops, including cotton, 41 grain crops, 10 hay crops, 6 legumes, 17 clover and grass seeds, 4 sugar or sirup crops, 21 fruits, 4 nut crops, 26 vegetables and truck crops, tobacco (23 types), and 6 miscellaneous crops.
- (2) Estimates of the numbers of all classes of livestock (horses, mules, cattle, sheep, swine and goats) on farms; meat-animal production, sales, disposition and value; wool and mohair production; also forecasts and estimates of numbers of hogs, sheep, and cattle on feed or available for market.
- (3) Estimates of milk production, utilization, sales, and value.
- (4) Estimates of numbers of poultry on farms, and poultry and egg production, sales, utilization and value.

- (5) Monthly reports of commodities in cold storage warehouses.
- (6) Periodic reports on production, stocks, manufacture, or other commercial pre-market handling of dairy and poultry products, i.e., monthly manufacture of dairy products, butter and cheese production estimates, evaporated and condensed milk production and stocks, commercial hatching of chicks and turkey poultts.
- (7) Reports on railroad, boat, and truck movements of agricultural commodities.
- (8) Reports on farm labor supply and demand, wage rates, and estimated farm employment.
- (9) Reports on prices farmers receive for their products and prices they pay for the things they buy, including monthly price indexes and ratios of prices received to prices paid, interest, and taxes.
- (10) Crop and weather research to develop improved methods of forecasting the yield of various crops during the growing season.
- (11) Collection from primary sources of special economic information relative to farm income and expenditures, taxes, land values, and rents.

Gathering the Information

The backbone of the crop and livestock reporting work is the corps of voluntary reporters -- more than 200,000 of them -- serving without pay. Most of these reporters are farmers, who report conditions on their own and nearby farms. Others are merchants, cooperative establishments and associations, canning associations, packers, stockyards, and other groups, that provide other types of information.

In most cases, the reports of this great number of individuals and groups are collected in the 41 state field offices. Each office is in charge of a trained statistician with two or more technical assistants and clerks. Once a month -- sometimes oftener -- the state statistician sends out schedules to be filled in by the reporters. The schedule may be for an acreage survey, covering the acreage for harvest of each crop on individual farms; it may be a "general" schedule asking each reporter to give the condition and yields of crops grown in his locality; it may ask for the number of cows milked on the farm, and the volume of milk production; it may contain questions as to numbers of farm laborers employed and as to wage rates in the community. Schedules are sent out monthly

during the growing season. In the South there are special schedules covering only cotton; in the West schedules dealing with production of fruits. In some months additional schedules are sent out dealing only with livestock production, such as the pig survey made in June and December in cooperation with the Post Office Department.

Most of the 10 million schedules or questionnaires mailed out each year, including the mailing, tabulation, and summarization, are handled by the field offices. The summaries are sent to Washington where they are reviewed by the Crop Reporting Board -- consisting of 5 or 7 Washington and field statisticians designated by the Secretary of Agriculture -- and then assembled and issued for the United States. (The Crop Reporting Board, which gives official sanction of the Department to estimates and forecasts, was established by Secretary of Agriculture James Wilson, in 1905.) Regular monthly reports covering forecasts and estimates must be approved by the Secretary of Agriculture before issuance.

The work of collecting and publishing agricultural statistics by the States and the United States is very closely co-ordinated. Cooperative agreements are in effect between the Federal Department and the state agencies charged with statistical work in more than two-thirds of the states. In the non-cooperating states very little, if any, statistical information relating to agriculture is collected by state agencies.

Releasing the Reports

Great care is taken to prevent the crop forecasts and estimates from reaching any unauthorized person prior to the exact day and minute fixed for release. These release dates are published far in advance. For cotton they are specifically fixed by law; for other crops the law requires only that they shall be issued on or about the tenth of each month.

In order to protect the integrity of the reports, the summaries from the field statisticians are sent in special envelopes addressed to the Secretary of Agriculture and are deposited in a locked box with two locks, the key to one being held by the Secretary of Agriculture and the other by the Chairman of the Crop Reporting Board. On the morning of the day a crop report is to be released, the Chairman and a representative of the Secretary take the reports out of the locked box. They are then taken, under police guard, to the rooms of the Crop Reporting Board for review, assembly, and release.

All doors to these rooms are locked and guarded, the windows sealed and the telephones disconnected, and no one is permitted to leave the room during the preparation of the report. The Secretary of Agriculture is admitted to approve the report and a few minutes before the time fixed for release it is taken

under guard by the Chairman to the release room where telegraph and telephone instruments are located for the convenience of the press and others. The reports are placed face down. No one is permitted to approach these instruments until the Secretary's representative gives the sign. The main points in the reports are made available simultaneously to farmers, traders, newspaper editors, radio broadcasters, and others, and in a few seconds are known all over the country.

Improving Estimates and Forecasts

Many changes have been made in crop reporting technique and in statistical methods. New methods by which to supplement and check the returns from crop reporters are constantly being tried out in order to improve the accuracy of the forecasts.

By careful checking of representative fields, careful observations are made of growing plants, filling heads of grain, or bursting bolls of cotton. The statistician uses a "crop meter" attached to the speedometer cable of his car. When buttons on the meter are pushed they record the number of feet of each crop along the road traversed. By covering the same routes year after year, a direct comparison of the number of feet of frontage of each crop is obtained. In the Cotton Belt, the statistician stops occasionally to count and measure cotton bolls in representative fields. In the Corn Belt he may stop to count and measure ears of corn in a small but representative area.

In 1939 a pre-harvest wheat survey was inaugurated to supply current information on quality in advance of harvest. In this study of the relationship of such plant characteristics as height of plant, number of heads and length of heads, to yield per acre, an objective method of forecasting yield as soon as the crop is fully headed may be developed.

New formulas for considering the effects of weather, soil moisture, and other factors which may be expected to affect crop yields are being perfected. Reports necessary under the Agricultural Conservation Program are used to check and assist in preparing acreage estimates.

Uses and Value of Agricultural Statistics

Agricultural statistics benefit all classes of people, particularly producers and marketing and distributing agencies, inasmuch as the data relate to essential facts of production and supply of food and raw materials.

Crop reports furnish an indispensable link between agriculture and other lines of business. Agriculture prospers directly and indirectly through the information on price trends that crop

reports indicate. Other industries prosper directly and indirectly through the location of the most economic sources of supply, and the more economical manufacture and distribution of products.

Current crop and livestock reports provide timely, unbiased, and authoritative facts as to the production of crop, livestock, and livestock products. They are used by farmers as a guide to adjusting the acreage of particular crops or numbers of livestock in the light of present and prospective supply and in determining when to market their products. They tend to reduce price margins which are increased by dealers in agricultural products when uncertainty of supply exists. They provide an unbiased basis for the market prices of the farm products of the Nation -- a direct benefit to consumers as well as producers regardless of whether they ever see the individual reports.

The official statistics are widely used by the legislative and executive branches of the Government, both Federal and State, in formulating constructive farm legislation and programs for the betterment of agriculture. They are universally accepted as the final authoritative and disinterested appraisal of production.

Additional sources of information include:

- (1) "The Crop and Livestock Reporting Service of the United States," Miscellaneous Publication No. 171, U.S.D.A., November 1933 (printed, 104 pages).
- (2) Separate, from the above, which gives a non-technical explanation of origin and purposes (printed, 16 pages).
- (3) "Seventy-fifth Anniversary of the United States Crop Reporting Service (1863-1938)." Bureau of Agricultural Economics, U.S.D.A. May 1938 (processed).

* * *

C O T T O N

Division of Cotton Marketing

C. H. Robinson In Charge

The broad functions of the Division of Cotton Marketing include:

- (1) Standards for cotton, cottonseed and cotton linters
 - (a) Their preparation and distribution
 - (b) Their development and improvement
- (2) Classification, grading and supervision
- (3) Price quotations and market supervision
- (4) Market news
- (5) Development of practical procedures for improving marketing methods

This Division is primarily a service agency for cotton. In addition to strictly service functions, it performs certain regulatory, supervisory, developmental, and investigational work. The work is done under the United States Cotton Futures Act of August 11, 1916, as amended; the United States Cotton Standards Act of March 4, 1923; the Grade and Staple Statistics Act of 1927, as amended; and other specific and general legislation.

Essential investigations of the physical and chemical properties of cotton fibers and cottonseed are coordinated with the standardization, classification, and grading functions. Studies are made of the practical aspects of cotton marketing with a view to improving market methods and organization.

Timely market news and price quotations are released at regular intervals. Statistical reports are compiled and released on the quality of cotton and cottonseed. And price quotations are compiled and published as a part of price and market supervision.

Part of this work originated nearly 40 years ago but most of it is of more recent origin. Important phases were authorized by Congress

Cotton Standardization

Cotton quality emphasized

Much of the work relates directly or indirectly to measuring and improving the quality of cotton lint. Qualities of cotton produced are naturally diverse since about 2 million farms produce cotton in the United States under wide differences in varieties of seeds planted and substantial variations in soil, climate, and cultural practices. Standards for quality are essential if manufacturers are to obtain uniform qualities suited to their needs, with maximum efficiency. The development and maintenance of adequate quality standards are also basic to many of the other essential functions performed.

Maintenance of standards

Official cotton standards are the basis for purchases and sales of American cotton on description, wherever American cotton is used. Copies of the standards for both grade and staple are prepared and distributed to buyers and sellers of cotton at nominal prices. Cooperative agreements are in effect between the Department of Agriculture and the leading cotton trade organizations of Europe and Japan. These organizations have adopted the universal standards for grade of American upland cotton as a basis of all their contracts if any grade is specified. The official cotton standards are the required basis of all cotton futures trading in this country. All interstate and foreign commerce transactions in spot cotton involving sales according to any standard descriptions must be based on the official standards.

Scientific methods used in improving standards

The development of adequate standards for cotton was one of the first projects undertaken. Vague and disordered commercial methods of describing cotton were used in the United States and in foreign countries prior to the promulgation of official cotton standards by the Department of Agriculture. In the beginning, the development of standards consisted largely of systematizing and establishing a set of practical official terms, forms, and types satisfactory to the domestic and foreign customers for American farmers' cotton. There remained the task of preparation and distribution of practical forms. But it was soon apparent that merely to maintain and distribute the standards was not sufficient. Technical and scientific investigations were begun on a broad scale to improve them and to create new and more adaptable methods for measuring the quality of cotton.

Cotton fiber, spinning and ginning tests are of vital importance to the improvement of the official cotton standards, but these investigations also have a wider significance. To conduct these technical investigations, physical, chemical, X-ray, color, ginning, and spinning laboratories are maintained either in Washington or at various points in the field. Cotton quality investigations are designed to measure scientifically the various properties of cotton fibers in terms of physical constants. They also provide information on the relation between these properties and those of manufactured cotton products. Practical methods are developed for recognizing and measuring important fiber properties.

All of this scientific work helps to provide more accurate control for the graduation, establishment, and reproduction of the cotton standards. Fiber and spinning studies also benefit cotton farmers by indicating what varieties of cotton, from the standpoint of quality of lint, are the best for each section of the Cotton Belt. This information serves as a guide for the production of cotton best suited to mill requirements. With cotton more nearly suited to mill needs, farmers' incomes should be increased, manufacturing efficiency improved, and ultimate consumer needs for clothing, household, and industrial materials more adequately filled.

Standard grades for cottonseed

The development and use of the standard methods for analyzing and for grading cottonseed have already accounted for material increases in the relative prices received by farmers for cottonseed.

The standard method of grading cottonseed is based, first, on the development of the seed, as indicated by the amount of oil and protein elaborated during growth -- oil and protein being the two most valuable constituents; second, on the deterioration that has taken place in the seed between the maturation of the bolls and the time of sale, as indicated by the percentage of free fatty acids in the oil; and third, on the quantity of moisture and foreign matter absorbed by or incorporated in the seed before sale and which affect the costs of assembling, storage and processing, as well as the quality of the products.

The determination of these factors involve chemical analysis and scientific measurements. The necessity for the accurate sampling of cottonseed and for the accurate chemical analysis of the samples was recognized as a problem precedent to the establishment of the standard grades. Therefore, along with the promulgation of the cottonseed standards, accurate methods were established for both the drawing and the handling of samples and for the procedure to be followed in making chemical analyses and calculating the grade of cottonseed.

Standards for linters

Standards for cotton linters are prepared and distributed in practical form for domestic use in much the same way as the official cotton standards. The standard grades, however, differ from those for cotton in that they do not represent gradations of imperfections, but are based on variations in the blends of the long and the short fibers found on cottonseed after ginning. Each of the standard grades for cotton linters, therefore, represent the particular quality desired by the several classes of consumers. Grade No. 1 is a spinnable quality of linters; Grade No. 2 is recognized as a basis grade for mattress feltings; while Grade No. 6 is a standard quality for consumers who use linters as a source of cellulose.

Classification of Cotton

Close supervision necessary

Cotton classification or classing, for purposes of marketing and utilization, has been defined as the art and operation of systematically recognizing and identifying similarity in quality according to accepted scales of measurement by a consistent method and by the use of consistent terms or descriptions.

In brief, cotton is classified by matching various qualities of cotton with the standards and by designating different qualities in accordance with standard terms. This is a manual process, not a mechanical process. The human element is important, and supervision and constant checking is required to insure accuracy. For grade determinations, the classer uses principally his sense of sight, and for staple and character he uses sight and touch in combination.

Classification for delivery on futures contracts

The Cotton Futures Act requires that any cotton for delivery in the settlement of futures contracts must be classified by a board of cotton examiners. These boards are maintained at points where cotton is delivered in settlement of futures contracts. In some years approximately a million bales have been classified for future delivery. An Appeal Board of Review Examiners in Washington is authorized to review classifications made by local boards. This service lends stability to cotton futures trading by providing assurance to purchasers of futures contracts that actual deliveries of cotton will be up to the requirements of the law as to tenderability. An efficiently and honestly conducted system of futures trading is an essential part of the modern system of cotton marketing for it provides hedging facilities where merchandising risks are carried, and it provides a sensitive price quotation mechanism.

Classification for the general public

Cotton may be classified for any person who has custody or a financial interest in it, according to the terms of the Cotton Standards Act. This provides a means by which farmers, merchants, and manufacturers are served through the classification of large quantities of cotton submitted by private persons and organizations. The Commodity Credit Corporation and other Federal agencies have also availed themselves of this service in connection with loans to farmers and in various purchases of cotton.

Qualified classers in private employment may be licensed and supervised. More than 2,000 licensed classers are supervised. The magnitude of this licensing and supervisory work is indicated by the fact that more than 8 million bales of cotton were classified by licensed classers during the 1938-39 season.

The cotton classing service rendered by the boards of cotton examiners and by licensed classers provide facilities for accurate determinations of grade and staple length of cotton in terms of the official standards. It encourages the purchases and sales of cotton according to its quality and commercial value from farm to mill. It is an essential part of an intelligent and efficient marketing system for American cotton.

Free classing for organized producer-groups

Free classing for groups of farmers organized to promote the improvement of their cotton is a new service. This work was authorized by Congress in 1937, in an amendment to the Cotton Grade and Staple Statistics Act of 1927, and was placed in operation during the 1938-39 season.

Farmers in 312 organized communities applied for classification service during this first season. Farmers must know the quality of their cotton promptly if it is to be of maximum benefit to them in selling their crop. To accomplish this objective and to facilitate classing, field classing offices were established at convenient locations throughout the Cotton Belt. Each grower was notified of the grade and staple length of each bale of cotton he produced. He didn't have to guess at what he had grown -- he knew in market terms the quality of cotton he had produced from his improved seed. An expansion of this service is indicated for the current (1939-40) season.

Classification for statistical purposes

The United States is the only important cotton-producing country that has a complete statistical reporting service for the quality of cotton produced. To provide this service, representative cotton samples are procured from current ginnings and from cotton in storage. These samples are classed and reports are issued on the

quality of the ginnings at regular intervals throughout the season for the various sections of the Cotton Belt. Reports on the quality of cotton in the carry-over as of August 1 are made each season.

The results of the classification of individual bales are returned to cooperating ginners for their use and for use by the farmers whose bales were sampled. This service was in a sense a forerunner of the free classification service now available to farmers in organized communities.

Complete statistical reports on the grade and staple of American cotton are available for each season since 1928-29. Among other things, these reports show an appreciable improvement in the average staple length of American cotton from about 15/16th inch in 1928-29 to more than 1 inch in 1938-39.

Accuracy of classing

The solution of the problem of increasing accuracy in classing has been approached in two ways. The first was to increase accuracy by close supervision and by improving sampling, standardization, and the physical conditions under which the work was done. Temperature and atmospheric conditions in the classing room, for example, appreciably affect the staple length of cotton. The second was to devise means for the mechanical classification of cotton. As to the first approach, material progress was apparent almost immediately in classing accuracy. The second is of a more fundamental nature and results are slower in coming. Mechanical methods for measuring fiber characteristics have been developed, however, and are now in use particularly in cotton mills. Adaptation to commercial use must be accomplished before scientific devices for measuring quality mechanically become of immediate practical value.

Supervision of cottonseed sampling and grading

Sampling and grading of cottonseed over the eastern and central portions of the Cotton Belt are done by licensed samplers and licensed chemists. These samplers and chemists are closely supervised. The service provides farmers and the general public with information on variations in the composition of cottonseed and the resulting differences in value.

Price Quotations and Market Supervision

Supervision of spot cotton quotations in 10 southern markets (bona fide spot markets designated as such by the Secretary of Agriculture under the Cotton Futures Act) is a mandatory function. These quotations are used by buyers and sellers of cotton futures contracts in settlements for grades above and below Middling, the basis grade.

This work is essential to the satisfactory operation of cotton futures markets. It provides reasonable assurance that spot quotations from day to day reflect actual values and that deliveries of tenderable grades other than the basis grade will be at proper valuations. This supervisory work helps in obtaining accurate market information for distribution as market news.

Market News

Cotton price quotations and timely information on marketing conditions have been compiled and released for nearly 20 years. The need for such authentic price and market information, however, was recognized long before the service was authorized by Congress under an amendment to the Cotton Futures Act in 1919.

Price quotations are available daily for the principal cotton markets. Weekly and daily reviews of cotton market conditions are released from Washington and from regional offices. The various reports are distributed directly by mail and radio and indirectly through the press.

Market news work is closely coordinated with that of classification. In recent years special arrangements have been made to assist farmers in quoting local market prices through representatives selected by organized producer-groups. Such a service, when coupled with the official classification of farmers' cotton, greatly strengthens their bargaining power. It encourages the production of better quality cotton and improves the efficiency of the cotton marketing system generally.

Market news reports are issued showing the range and average grade of cottonseed sold in local communities. These reports are related to current prices and farmers are instructed as to the use of this information. Facilities are furnished for accurate sampling, grading and valuation of cottonseed under Governmental supervision.

Development of New and Improved Marketing Methods

This research work includes studies of practical procedures to encourage the effective use of available services and otherwise to facilitate the marketing and handling of cotton. Marketing procedures in local markets where farmers sell their cotton are now being studied. Practical methods are being developed whereby farmers may realize prices for their cotton consistent with its quality.

Lines of movement, points of concentration, and ultimate destination of cotton from various producing areas are being ascertained as a basis for providing more effective marketing services.

An automatic and mechanical sampling device for cotton bales is being developed. This mechanism is designed to provide a representative sample of the cotton of each bale as it is formed at the gin. Such a device would eliminate the necessity of cutting samples and the waste and other undesirable results arising out of present sampling methods. It would also discourage careless and occasionally fraudulent packaging practices.

A method of permanent identification of individual bales of cotton has been devised that is designed to fix responsibility for the contents of each bale and to enable farmers to obtain recognition for cotton of superior quality. The development of this system is essential to the adoption of a system of initial sampling and classification of cotton. The adoption of a practical system of permanent bale identification and initial sampling and classification would eliminate the expense of duplicating these services with each change in ownership of a bale of cotton.

Packaging methods for American cotton are far from satisfactory. The use of improved light-weight bale covering and bands is retarded by the unsatisfactory gross-weight basis under which American cotton is sold. Practical methods for eliminating packaging wastes are being evolved and tested in commercial usage.

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D A I R Y A N D P O U L T R Y P R O D U C T S

The Division of Dairy and Poultry Products

Roy C. Potts In Charge

The general scope of the work of the Division of Dairy and Poultry Products is indicated by three general projects under which it is conducted:

- (1) Market news
- (2) Grading and inspection
- (3) Marketing research

Through the market news project, current information is furnished to producers, processors, distributors, and consumers with respect to the supply, demand, and prices for the various dairy and poultry products -- chiefly butter, cheese, eggs, and live and dressed poultry.

The grading and inspection work covers the commercial grading of butter, cheese, eggs, and dressed poultry and the inspection of live and dressed poultry. These services are voluntary, and are conducted in cooperation with State agencies.

Research work covers a wide field, including studies of the factors making for quality or grade, the formulation of tentative or official standards for use in grading and inspection, and studies of packaging, processing and freezing methods as they relate to the preservation of the quality of dairy and poultry products in retail channels of trade and storage.

Dairy and Poultry Market News

Whether it be a dairy or poultry producer delivering his product to point of sale, or a consumer buying this product for his own use, the question of price is involved. The producer, on the one hand, is interested in a high return, but the consumer usually wants to buy at as low prices as practicable. Although the two viewpoints may be diametrically opposed, the producer and consumer recognize that a practical means of establishing a fair price exists when facilities are provided for measuring the relationship between supply and demand. Through the market news service on dairy and poultry products, producers, distributors, and consumers are given information on supply and demand, and on prices prevailing in the channels of distribution.

Nine offices maintained

At the present time, market news offices on dairy and poultry products are maintained at Washington, D.C., New York, Chicago, Philadelphia, Boston, San Francisco, Los Angeles, Seattle, and Portland(Oregon). Market reports also are issued from Baltimore, Pittsburgh, and Cleveland, in cooperation with market news offices of other Divisions. Other cities are important outlets for dairy and poultry products, but to a large extent, changes that occur in the above-named markets are reflected in similar changes at other points.

Varied types of information

Types of market information being made available are not uniform for all markets, but in general include market receipts, cold-storage movements and stocks, current trading stocks on dealers' floors, and prices. Reports showing terminal market receipts are in such detail as to make it possible to study sources of supplies for individual markets, shifts from time to time due to changes in market requirements, direct buying, and adjustments in merchandising methods and outlets. These data show also shifts that are taking place from rail to truck transportation.

In addition to terminal market receipts, information is made available regarding receipts at country packing plants where eggs and poultry are handled, at egg auctions, and at primary cheese market warehouses in Wisconsin. Such information shows marketings and supplies available for trading, and to some extent indicates current production, particularly of eggs. Better indications of current butter production are weekly reports developed for selected areas.

Market receipts alone do not give a clear picture of a local supply situation inasmuch as some of the arrivals may be utilized for out-of-market business. Traders wish to know not only how much

of a given product is flowing into a market, but also need to have some knowledge of local inventories, in order to know how freely the product is moving into distribution or consumption. Accordingly, information is made available regarding dealers' trading stocks and stocks in public cold storages. Such information on a daily or weekly basis affords a means whereby the trade output of a market or group of markets may be calculated. Timely reports of cold storage stocks in related markets also afford a basis for estimating total U. S. stocks.

Some progress is being made in providing information regarding the quantities of butter and eggs moving regularly into retail channels. This information is compiled from reports received from sample groups of retail distributors such as chain store companies. Since retail distributors carry stocks for short periods, reports of retail sales closely measure the rate at which these products move into consumption.

The basis of reporting prices that has been most widely followed is the "open wholesale transaction" in terminal markets. This is the first sale after the product reaches the market, and represents a transaction involving relatively large quantities of a grade sold for cash or short-time credit. Because of many changes in merchandising and marketing that have taken place in recent years -- such as direct marketing to retail distributors by cooperative associations, direct buying in the country by large retail distribution companies, mergers in the market due to large-scale organization -- the volume of wholesale business has been declining. For this reason, alternative types of price information are being studied. Some progress is being made in reporting f.o.b. prices at primary markets in the country where eggs are bought on a graded basis.

In general, the set-up in a market reporting office includes technical personnel who have had experience in handling commodities and whose additional training qualifies them to do market reporting work. The information they obtain is furnished voluntarily by market dealers, cold storage warehouses, railroads, trucking firms, etc.

Reports issued daily, weekly, monthly

Market reports are issued daily, weekly and monthly in mimeographed form, and are distributed regularly to mailing lists that contain the names of those persons or firms who have requested the service. All market reports are for free distribution. In addition to these mailing lists, the information made available through a market reporting office is given further wide distribution by newspapers, trade journals, private wires of dealers, market letters of dealers, and radio. It is also made available

to local mercantile exchanges where it is posted as soon as available on blackboards provided for this purpose. Market reports are interchanged between reporting offices over the leased telegraph circuits of the Bureau.

The present service is an outgrowth of that set up first in 1918.

Grading and Inspection

The grading and inspection of dairy and poultry products include the following major activities from the standpoint of volume of product graded or inspected: butter, eggs, and dressed poultry graded, and dressed poultry inspected for condition and wholesomeness. Limited quantities of live poultry and frozen eggs are inspected for condition. Limited quantities of cheese and live poultry are graded.

The inspection of dressed poultry for condition and wholesomeness include: (1) poultry inspected for use in the preparation of canned poultry products, and (2) poultry inspected for sale as full-drawn, ready-to-cook poultry.

In addition to the commercial grading and inspection service, considerable grading has been performed at times on butter, eggs, cheese, dry skim milk, and evaporated milk purchased by the Federal Government for relief purposes.

A sizable part of the grading service performed is for products for wholesale or jobbing channels of trade. For butter and eggs, however, a program has been developed that permits the carrying of the official grade of these products through to the consumer. This is accomplished by means of the use of certificates of quality or grade seals that are either inserted in the retail package, printed on butter wrappers, or used to seal the retail package.

Six major objectives

General objectives of the grading and inspection are:

- (1) To provide standards and grades for products by means of which the relative quality or desirability of a product may be ascertained; to establish standards and grades that are adequate and yet practical.
- (2) To make effective the standardization of dairy and poultry products through official grading and inspection.
- (3) To provide a basis for payment to producers or others for a product according to its actual quality.

(4) To encourage producers to improve production and handling practices so as to improve the quality of their product.

(5) To reward producers of better quality products through better prices for improved products.

(6) To establish consumer confidence in grading and standardized products.

Services permissive; fees cover costs

Official grading and inspection of dairy and poultry products are entirely permissive in character -- they may be used by anyone desiring to do so where facilities are available. The services are not in themselves compulsory, except insofar as they may be the basis for trading of butter and eggs on futures contracts. They will be rendered to any person having a financial interest in the product and who makes application, provided grading or inspection facilities and personnel are available. The services are almost exclusively Federal-State services, through cooperation of the Agricultural Marketing Service and official State agencies. The procedure is governed by the provisions of cooperative agreements between the Agricultural Marketing Service and the States concerned.

Grading and inspection are available both at shipping or processing points and at terminal markets. If an inspector is located at a terminal market, it is customary to make a charge on the basis of established scales of fees. At shipping points or processing points, grading and inspection are generally rendered on a contract basis whereby the user of the service pays an amount equivalent to the salaries of the graders or inspectors, plus an overhead charge. In general the fees and charges collected are adequate to carry the full costs of the services rendered including deposit into the Federal Treasury of an amount approximately equivalent to the allotment for the grading and inspection work.

Grading and inspection are rendered at the following terminal markets: Washington, Richmond, Baltimore, Philadelphia, Boston, New York, Chicago, St. Louis, Los Angeles, San Francisco, Portland, and Seattle. The services also are provided at shipping points, concentration points, or processing points at various locations in Florida, North Carolina, Virginia, Maryland, Ohio, Michigan, Indiana, Pennsylvania, New York, New Jersey, Delaware, Massachusetts, Illinois, Minnesota, Iowa, Kentucky, Nebraska, and Missouri. A seasonal grading service on turkeys is carried on at a large number of shipping or concentration points in some 16 states.

Encouraging growth experienced

The grading and inspection services have shown considerable growth in recent years. Comparisons for the calendar years 1928 and 1938 follow:

<u>Product</u>	<u>1928</u>	<u>1938</u>	<u>Percentage increase</u>
Butter graded	124,382,270 lbs.	320,456,549 lbs.	158
Eggs graded	397,166 cases	1,148,039 cases	189
Dressed poultry graded (incl. turkeys)	1,843,125 lbs.	26,915,058 lbs.	1360
Dressed poultry inspect- ed for condition and wholesomeness	3,150,423 lbs.	43,538,661 lbs.	1282

Services widely used

The grading and inspection services are used by producers and producer organizations; packers, shippers, or processors; terminal market dealers; Federal, state, county, city, and private institutions; steamship companies; hotels and restaurants; railroads; cold storage warehouses; and retail organizations merchandising in particular butter and eggs under certificates of quality or grade seals.

Marketing Research

In marketing research relating to dairy and poultry products, information is sought regarding improved technological methods and processes for the handling and marketing of these products.

Standardization studies

Research is conducted over a wide field. It includes fundamental studies in standardization, with a view to preparing tentative and official standards for use in grading and inspection. It includes studies of the various statistical series developed in the market news work, and of problems arising in connection with marketing methods and practices and in establishing price quotations.

The scope of the research work on standardization covers butter, cheese, eggs, and live and dressed poultry. As the result of this work official U.S. standards for quality of creamery butter were promulgated by the Secretary of Agriculture, effective April 1, 1939. Official U. S. standards for quality of individual eggs have been promulgated. Tentative U.S. standards for grades of eggs, for live and dressed poultry and for American cheese have been adopted.

A recent survey of the quality of butter sold at retail in New York and Chicago showed that although a great deal of butter of high quality is available at these markets, the safest procedure in buying butter of high quality is to purchase butter that carries a certificate of quality -- butter that has been Government graded as either 92 or 93 score.

Methods of handling, processing

Studies in marketing methods and practices for poultry products have included the processing of eggs by a method developed by the Department in which the eggs are dipped in oil, a vacuum is drawn on them, and the vacuum released with CO₂ gas. Studies have been made on the preservation of dressed poultry by methods of quick freezing and glazing.

Keeping-quality tests of samples of butter that had been Government graded were held for a period of 7 days at a temperature of 70 degrees Fahrenheit were helpful in detecting butter that was likely to deteriorate in channels of distribution. By eliminating the causes of the deterioration of such butter at sources of production, it is possible to insure better keeping quality in the Government-graded butter packaged with certificates of quality.

A study in progress at the present time of butter price quotations and butter price mechanisms is expected to result in improvements in the market news reporting on butter and in the reporting of prices that more accurately reflect the actual value in the wholesale markets.

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F R U I T S A N D V E G E T A B L E S

Fruit and Vegetable Division

W. G. Meal . In Charge

The Fruit and Vegetable Division is comprised of two branches of work -- research and service, and regulatory. Seven major activities are included:

- (1) Research and Service
 - (a) Market news
 - (b) Food products inspection
 - (c) Standardization and research

- (2) Regulatory
 - (a) Produce Agency Act
 - (b) Perishable Agricultural Commodities Act
 - (c) Standard Container Acts
 - (d) The Export Apple and Pear Act

Market news is provided daily from the major receiving markets and from principal shipping sections of the country. Destination and shipping point inspection on fresh fruits and vegetables is made upon request. Shipping point inspection is available in 44 States. Inspection of canned products also is made upon request, and certificates of quality and condition are issued.

Standards have been developed for 56 different fruits and vegetables and 8 other products such as peanuts, honey, and maple sirup. The research work includes the development and maintenance of adequate standards of quality and investigations relating to other phases of marketing.

Research and Service

The research and service branch of the work with fruits, vegetables, and nuts includes: (a) market news, (b) inspection, and (c) standardization and research.

Market News

The market-reporting service on fresh fruits and vegetables was inaugurated in 1915. This service furnishes information on shipments, receipts, unloads, market prices and demand for fresh fruits and vegetables daily by leased wire, commercial telegraph, and mail from the principal receiving markets and from the principal shipping sections of the country. The information is condensed into report form and distributed without charge by mail or by wire or radio if facilities are provided by the applicant to all interested persons in shipping sections and receiving markets. Similar information on peanuts is collected and distributed weekly and on honey semi-monthly.

Reports issued periodically summarize the marketing of individual crops in producing sections from which daily market information has been released. Special reports are made on unloads of fruits and vegetables in a number of the large receiving markets.

Permanent market news offices are maintained in 21 of the large receiving markets of the country and temporary field offices of from 1 to 8 months' duration in about 45 of the principal shipping sections. Seventeen states cooperate in the market news work carried on in those states.

Inspection service

Inspection at destination and shipping point is available for fresh fruits and vegetables, and nuts, and for the processed forms of many of these commodities.

Market inspection of fruits and vegetables was inaugurated in 1917 as a war measure, and was made a part of the regular work of the Department in the following year. At that time it was restricted to investigation and certification of the condition of fresh fruits and vegetables in receiving markets. For the year ending June 30, 1919, approximately 14,500 cars were inspected. In 1922, authority for inspection of perishable food products by the U.S. Department of Agriculture was broadened by providing for Federal certification at shipping points, and later expanded to include canned and dried fruits and vegetables. During the 1937-38 season, more than 500,000 cars of fresh fruits and vegetables were certified; also 5 million cases of canned fruits and vegetables.

Total Number of Inspections

<u>Year (ending June 30)</u>	<u>Shipping Point</u>	<u>Receiving Markets</u>	<u>Total</u>
1925	131,087	32,334	163,421
1930	243,129	44,740	287,869
1935	306,435	53,443	359,878
1938	450,065	49,052	499,117*

* During 1937-38, an additional 15,649 cars of potatoes were inspected for diversion to livestock feed and for the manufacture of starch.

Upon request of financially interested parties fresh fruits and vegetables are inspected at destination in the principal receiving markets, and certificates showing quality and condition of such commodities are issued. A fee of \$4 per car for fresh fruits and vegetables, except in the case of special commodities, is charged for this service. The certificates issued are of great assistance in settling differences of opinion between shippers and receivers. They are prima-facie evidence in Federal courts and in actions under the Perishable Agricultural Commodities Act.

Shipping-point inspection is conducted in 44 States in cooperation with State departments of agriculture, or other governmental agencies. Agreements with such agencies provide that the States shall employ inspectors who are to be licensed by Federal supervisors upon showing proper qualifications. The cooperating agencies defray the expenses of the service from the fees collected and reimburse the Federal department for the supervision which is necessary in order to insure uniformity in the application of the grades in the different states.

Material assistance is rendered to other Federal agencies. All supplies of fresh fruits and vegetables for the Navy and for veterans' hospitals are inspected in accordance with Federal standards. Similar service is furnished to numerous State, county and municipal agencies. All purchases of fresh fruits and vegetables by the Federal Surplus Commodities Corporation are expected to show compliance with purchase orders. The shipping-point branch of the service is also used as the agency for certification of compliance with standards under marketing agreements covering fresh fruits and vegetables.

Based on inspections of processed fruits and vegetables, certificates of quality and condition are issued to show compliance with the recommended grades or other standards upon which commercial contracts and purchases by governmental agencies are based. Fees are charged which are expected approximately to cover the cost of the service. Standards are being developed for additional dried and frozen fruits and vegetables not now included in the work.

Standardization and marketing research

The object of the research work is to develop U. S. standards to be used in grading and marketing and to investigate handling and marketing practices in order to assist in bringing about improvements in the industry.

U. S. standards for 64 different products have been issued. Since two or more standards are necessary for some products because of differences in types and uses in various producing areas, 95 standards have been issued. This total includes 80 standards for 56 different fresh fruits and vegetables and 15 standards for 8 other products not classed as fruits and vegetables.

Introduction of new varieties, ravages of insect pests and diseases that introduce new grading factors, changes in trade demands and improvements in the methods of handling, packing and shipping, require periodic revisions of grade specifications in the permissive U. S. standards for fruits and vegetables so that they accurately represent commercial values. Constant research is necessary in order to refine and make more specific the definitions for various types of grade defects in the large number of U. S. standards now in effect and in which many definitions are general instead of specific. Investigations are also made relative to developing better methods of obtaining uniform interpretation of grade defects.

U. S. standards furnish a common language as a basis for futures contracts, a language that is indispensable in making telegraphic sales, sales in transit or in any circumstance in which the buyer cannot exercise the privilege of inspection before purchase. Such standards are also necessary in the settlement of claims and to permit an intelligent comparison of market prices. The sorting of a product into definite classes to meet buyers' demands permits more effective distribution, extends the marketing season and reduces marketing costs. Definite standards are of great importance in relation to such marketing functions as financing and advertising. Warehouse operation under the provisions of the U. S. Warehouse Act requires the use of U. S. grades where they are available.

The practice of shippers grading products that move to city markets, so that these products meet the requirements of the U. S. standards; prevents much loss from waste and deterioration in transit by the elimination of culs and inferior quality before shipment. The adoption of U. S. standards by canners and growers as a basis for purchasing and delivering raw products also is becoming more widespread each year. They as well as consumers benefit from such a program. The use of the standards

encourages growers to produce and carefully to harvest a higher quality product because canners pay higher prices for better quality deliveries. The canners can afford to pay more because waste in manufacture is less; labor costs are reduced; the proportion of receipts suitable for processing is higher; and the quality of the manufactured product is superior.

As these grades are used as a basis of sales, it follows that the inspections by the Federal or Federal-State inspector are made on the basis of these grades. The use of Federal standards by buyer and seller as basis of sale has greatly facilitated the rendering of decisions under the provisions of the Perishable Agricultural Commodities Act. The Agricultural Adjustment Administration has made very extensive use of the U. S. standards in regulating shipments in connection with marketing agreements, and in the operation of programs for the purchase or diversion of surplus fruits and vegetables.

Investigations relating to harvesting, grading, sizing, packing, transportation to market, selling at shipping points, or in the markets, and prices for different varieties, grades and sizes are a part of the research work.

Considerable research is carried on relating to such current problems as the use of the motortruck in marketing fruits and vegetables and in developing more reliable and adequate information regarding the movement of these commodities by this means of transportation. Analyses showing areas of production, distribution of shipments and related information are helpful to those interested in the marketing problems relating to specific crops.

Regulatory Work

The regulatory work concerns the enforcement of the (a) Produce Agency Act, (b) The Perishable Agricultural Commodities Act, (c) The Standard Container Acts, and (d) the Export Apple and Pear Act.

Produce Agency Act

The Produce Agency Act is "An Act to prevent the destruction or dumping, without good and sufficient cause therefor, of farm produce received in interstate commerce by commission merchants and others and to require them truly and correctly to account for all farm produce received by them." This is a criminal statute which applies only to agency transactions. It is enforced in connection with the Perishable Agricultural Commodities Act, but includes dairy and poultry products and certain other perishable farm products not covered by the Perishable Agricultural Commodities Act.

Perishable Agricultural Commodities Act

The Perishable Agricultural Commodities Act became a law on June 10, 1930. It requires all commission merchants, dealers and brokers having to do with the marketing of fresh fruits and vegetables in interstate or foreign commerce to secure a license from the Department of Agriculture at a cost of \$10 per year. To engage in the handling of fresh fruits or vegetables in interstate or foreign commerce without such a license makes the offender liable to a penalty of not more than \$500 for each offense and not more than \$25 per day for each day it continues. In addition, he may be enjoined from doing business without a valid license.

The Act sets forth nine offenses as unlawful. These are the making of any fraudulent charge; rejection without reasonable cause; failure to deliver without reasonable cause; dumping without reasonable cause; false or misleading statements; failure truly and correctly to account; misrepresentation of character, kind, grade, quality, condition, degree of maturity, state or country of origin; removing, altering, or tampering with any card, stencil, stamp, tag, or other notice placed on a container or railroad car, containing a statement of grade of the fruit or vegetable contained therein; and the making of any change in the contents of a load or lot of vegetables or fruits that has been inspected, without the consent of the inspector. If a licensee is found guilty of any one of these offenses he may be punished by publication of the facts and/or suspension not to exceed 90 days, or revocation, of his license. Licensees are also required to keep such records as will fully and correctly disclose all transactions involved in their business. Failure to keep such records may be punished by publication of the facts or suspension of license for a period not to exceed 90 days.

The Secretary may receive from injured parties claims for damages resulting from any violation of the Act and, if the claim is supported by proper evidence, issue a reparation award against the offender. No hearings are held in cases involving \$500 or less; the parties submit their evidence by means of depositions or verified statements of fact. In cases involving amounts between \$500 and \$2,000, hearings may be waived by consent of both parties. Hearings must be held in cases involving more than \$2,000.

When the Secretary has issued a reparation order the licensee against whom it is directed has 30 days in which to pay it or appeal to a U. S. District Court. If he fails to take either of these courses his license is automatically suspended by operation of law at the expiration of 5 days after the end of the 30-day period. If a decision is appealed to a U. S. District Court, a new trial is held but the findings of fact and order of

the Secretary are prima-facie evidence of the facts therein stated. The party in whose favor the reparation award is issued may within 3 years from the date of the order file a suit in the U. S. District Court, of the district in which he is located, seeking to enforce the award.

Since the Act was enacted in 1930, more than 20,500 complaints have been filed, of which more than 19,800 have been settled. The Secretary has rendered decisions in 2,303 cases and has issued reparation awards amounting to more than \$600,000. Since the amendments of April 1934, the Department has assisted in amicable settlements in cases involving more than \$1,100,000. More than 20,000 licenses are now in force.

Export Apple and Pear Act

The Export Apple and Pear Act of 1933 is intended to prevent the shipment of fruit of low grades to foreign markets which might injure the reputation of American fruits in general and which under the conditions existing in any one season would not be likely to sell for more than the cost of preparation and marketing.

The regulations under the Act fix the minimum quality that can be exported and the conditions under which railroads and steamship lines may accept shipments billed to foreign markets.

Standard Container Acts of 1916 and 1938

The two Standard Container Acts fix the sizes for Climax baskets, containers for small fruits and vegetables, standard hampers, and round stave and splint baskets. The administration of these Acts involves the testing of samples of these containers in order to determine whether they comply with prescribed standards and the preparation, for submission to the Department of Justice, of cases against those who fail to comply with the provisions of the Act.

* * *

G R A I N

The Grain Division

E. C. Parker In Charge

The work of the Grain Division may be outlined under four principal headings:

- (1) Administration of the U.S. Grain Standards Act
- (2) Inspection of rice
- (3) Grain standards research
- (4) Cooperative educational activities

Official standards are in effect for wheat, barley, oats, feed oats, mixed feed oats, rye, mixed grain, flaxseed, corn, and grain sorghums. Approximately 400 licensed inspectors are available at 175 important grain markets, and their work is constantly supervised to assure as correct and uniform inspections as possible. Inspection of samples prior to marketing of their crops is being requested by an increasingly large number of individual producers.

Rice inspection is used extensively in the major producing states, and the service is expanding at distributing centers for milled rice. A grain standards research laboratory is maintained at Washington, D. C. Educational activities include the holding of about a hundred grain-grading schools annually, attended by approximately 10,000 producers, shippers, and dealers.

Grain Standards Act

The Grain Standards Act was passed in 1916. It authorizes the Secretary of Agriculture to establish official standards for grain, to license inspectors to apply such standards, and to handle appeals from inspectors' determinations upon application by any interested party. It is primarily a service statute but carries certain regulatory provisions designed to prevent fraud and misrepresentation as well as to protect the integrity of the official standards. The need for the legislation arose from a chaotic condition in grain marketing which developed from the use of a variety of local standards and a lack of uniformity in their application.

At the present time official standards are in effect for wheat, barley, oats, feed oats, mixed feed oats, rye, mixed grain, flaxseed, corn, and grain sorghums. By the terms of the law their use is mandatory, and official inspection is required, if the grain be sold by grade and shipped in interstate commerce from or to a place at which official inspection service is maintained. Aside from the mandatory features, the standards have been voluntarily adopted throughout the country as the basis of trading at country elevators, at terminal markets, for warehousing and financing purposes, for futures trading, and in foreign commerce. It has now become trade custom to utilize the official grain standards in the merchandising of grain. The standards furnish the medium of a common understandable language between buyers and sellers. Through official inspection, an unbiased appraisal of the quality of the grain, independent of either buyer or seller, is provided.

"The Service of Federal Grain Standards",
Miscellaneous Publication No. 328 of the
U.S.D.A., issued in December 1938, is a non-
technical discussion of the official stand-
ards, their history and use.

Inspection available at 175 markets

The inspection service functions through 400 licensed inspectors whose services are available at 175 important grain markets. These licensees are not Federal employees. They are employed by States, boards of trade, chambers of commerce, and in a few instances, they act independently on a fee basis. They are prohibited by law from having any financial interest in grain merchandising or from being in the employment of grain dealers or elevator operators, and their licenses are subject to suspension or revocation for cause. Their work is supervised by Federal

grain supervisors -- operating from 46 important markets -- to insure correct and uniform application of the official standards, and to handle appeals on behalf of the Secretary from inspections performed by these licensees upon application of an interested party.

The accompanying tabulation shows in terms of carloads the average number of inspections performed by licensed inspectors for the 3-year period 1918 to 1920 as compared with the 3-year average for the years 1936 to 1938. This table also shows a comparison of the number of Federal appeals handled directly during the two periods.

<u>Inspections of Grain</u>	(Cars)	<u>Appeals</u>
January 1 - June 30, 1917	236,348	324
July 1, 1917 - June 30, 1918	773,842	1,457
July 1, 1918 - June 30, 1919	1,339,173	6,652
<u>July 1, 1919 - June 30, 1920</u>	<u>1,473,143</u>	<u>10,960</u>
3-year average, 1918 - 1920	1,195,053	6,356
July 1, 1935 - June 30, 1936	1,079,811	49,416
July 1, 1936 - June 30, 1937	1,002,797	33,354
<u>July 1, 1937 - June 30, 1938</u>	<u>1,503,868</u>	<u>79,675</u>
3-year average, 1936 - 1938	1,195,492	54,148
Corn standards became effective December 1, 1916		
Wheat " " " July 1, 1917		
Wheat " revised " July 15, 1918		
Oats " became " June 16, 1919		
Original number of supervision districts - 32		
1938 - number of supervision districts - 37		
1938 - number of substations - 6		

Correct and uniform inspection

A general field headquarters is maintained at Chicago and a Pacific Coast headquarters at Portland, Oregon. At these offices a staff of grain-grading experts known as a Board of Review is in constant touch with district supervisors, through the medium of exchange of samples disseminating interpretations of the standards in order to bring about correct and uniform application by all supervisors and all inspectors located throughout the country. The structure of the standards is such that although many of the determinations are performed by means of mechanical apparatus, there are several factors that must be determined by the exercise of human skill and judgment. Because of these factors, the Board of Review is charged with the duty of interpreting the standards for the persons who use them in official inspection work.

The aim is for correct and uniform inspection in the first instance so that producers and traders need not be put to the necessity of calling Federal appeals. Here it should be noted, however, that many appeals are made as the result of contractual stipulations or to insure delivery of grain of a quality that meets the buyers' requirements, and not as the result of incorrect inspections.

In furtherance of the policy designed to secure correct original inspections, licensees are required to report daily to the district Federal grain supervisor the inspections performed by them. In addition to the appeal inspections they handle, district supervisors take samples at random from lots of grain previously inspected by a licensed inspector in order to check the accuracy of his performance. Approximately 200,000 appeal and supervision samples are taken annually from graded lots of grain throughout the country.

Standards are widely used

The widespread use of Federal grain standards and inspection has established the system of national standards as an integral part of our grain marketing system. They function as the basis of price quotations at country buying points, on the trading floors of the various grain markets, in merchandising between markets, and in foreign cables negotiating export transactions.

Use of the standards at country buying points is indirect rather than direct. There are very few country buying points at which the volume of inspection business warrants the maintenance of an official inspection service. Notwithstanding this, buyers and sellers at country points with price quotations furnished them from central points by mail, telegraph, and radio can, in the light of their previous experience with shipments forwarded to inspection points and actually graded, estimate closely the grade which they may expect to receive on official inspection.

In certain sections of the country, producers have undertaken to inform themselves as to the grade of their grain prior to sale by submitting a representative sample to the nearest licensed inspector. In such circumstances the inspector grades only the sample, but with the inspector's report in hand the producer is in position to bargain intelligently for the sale of his crop. This method has been widely adopted in the Pacific Coast territory where last year some 20,000 samples of grain were officially inspected and the results reported to producers.

Rice Inspection

Inspection of rice is conducted under the authority contained in the Farm Products Inspection item of the Annual Appropriations Act. The work is done in cooperation with state agencies

under cooperative agreements and is confined largely to the principal rice producing states of Louisiana, Arkansas, Texas, and California. A distinct trend is now noted toward the use of the service in certain milled rice distributing centers such as Memphis, St. Louis, and New York.

Federal-State rice inspection laboratories are maintained at New Orleans, Crowley, Lake Charles, and Abbeville, La.; San Francisco, Sacramento, and Stockton, Calif.; and official sampling service is available at the most important outlying rice milling and marketing centers in these States. In addition, federally operated inspection laboratories are maintained at New Orleans and San Francisco.

Tentative standards for milled rice were first promulgated in 1918. Since then, U. S. standards have been promulgated for rough rice, brown rice, and milled rice. The standards have been revised and amended from time to time in order to meet the actual requirements of marketing. The milled rice grades and inspection are used extensively in the export trade as the basis of contract to insure the quality of deliveries and to avoid trade controversies and hazards.

During the past fiscal year nearly 300 million pounds (or nearly 3 million cwt. or pockets) of rice moving in commerce were inspected, graded, and certified. Much of this rice moved in export commerce and, in addition to the grading service, the inspection departments served exporters by issuing certificates of origin, thus enabling shippers to take advantage of preferential tariff treatment in foreign countries, particularly in Cuba.

Grain Standards Research

A grain standards research laboratory is maintained at Washington, D. C., to provide background information for the operative inspection services in both grain and rice. If the inspection services are to be of commercial value, the standards must be practicable so that delays and demurrage on railroad cars and vessels may be avoided. On the other hand, the standards must be sufficiently definite and precise to reflect the commercial and intrinsic value of the commodity. The research laboratory performs mechanical, chemical, and milling and baking tests on samples of grain found in commerce not only with the view of improving the structure of the standards to meet changing conditions in the various industries but also to evolve new and improved methods of evaluation which can be translated into terms of practical inspection procedure.

The projects undertaken in the laboratory include: testing of electric moisture meters which indicate accurately the moisture content of grain in much less time than was formerly required by the distillation method; development of a method to determine the

degree of soundness in grain for use in those cases in which deterioration has taken place en masse but which cannot be properly evaluated by determining the percentage of damaged kernels by the methods used at present in commercial inspection; methods for determining incipient and progressive damage in stored corn; rapid tests for determining the quantity and quality of oil in flaxseed and soybeans; methods for evaluating barley that has premium values for malting purposes; and the milling of wheat and baking of the flour to evaluate its properties.

Of major importance has been the development and standardization of mechanical equipment for use in grain inspection work to eliminate the personal element, such as the development of a divider to cut down large samples into aliquot portions for analytical purposes; improvement of test weight per bushel apparatus, development and standardization of dockage machines for cleaning grain, and the development of sieving apparatus for use in performing kernel-sizing tests.

The grain standards research laboratory works closely with all field offices in connection with problems which arise constantly in the day-to-day inspection work but can be solved satisfactorily only by the more careful and precise laboratory methods.

Cooperative Educational Activities

Educational activities are conducted in cooperation with the Extension Service of the Department, State extension services, State agricultural colleges, producers' and grain-users' organizations, and national and state grain dealers' associations. Principal objectives of these activities are to demonstrate and explain to producers, country shippers and grain dealers the factors of the official grain standards employed to measure quality, the cultural, handling, loading, and shipping methods best adapted to deliver high-grade grain in the markets, and the production and handling methods which should be employed by producers and shippers to avoid market discounts.

Many surveys are made annually at country shipping points with respect to the quantities of premium quality and "off-grade" grain shipped to the terminal markets. These surveys also show the causes for low-grade grain shipments and the losses suffered through discounts.

Grain-grading experts participate with the extension specialists and State agricultural college agronomists in conducting grain grading and marketing schools in all of the important grain producing states. Each year about 100 such schools are

held, attended by approximately 10,000 producers, shippers, and dealers. Producers are invited to bring samples of their seed grain to these schools for grading by experts and for advice as to the desirability of such grain for seeding purposes. Demonstrations of grain grading principles are made with such samples to indicate to producers and others the superior or inferior qualities which function to determine premiums or discounts at the terminal grain markets.

The educational activities bring to the attention of grain producers and shippers the production and marketing practices that function to maintain high quality in grain marketings, thus to increase market returns to the producer.

* * *

H A Y - F E E D - S E E D

Hay, Feed, and Seed Division

W. A. Wheeler In Charge

Work in the Hay, Feed, and Seed Division falls within three broad fields:

- (1) Standardization and marketing research
- (2) Inspection and certification
- (3) Market news

Investigational work in the standardization and marketing of the farm products now included within the scope of this Division's activities was inaugurated by the Department in July 1916, 3 years before the creation of the Division. In 1919, work was begun on hay standardization, and a few years later it was extended to dry edible beans, soybeans, and related commodities. An inspection service is now maintained for hay, beans, soybeans, peas, and seed. The market news covers hay, beans, grains, feed-stuffs, rice, and hops.

Standardization and Research

Investigational work looking toward the establishment of Federal standards for hay was begun in 1919. At that time commerce in hay was in a chaotic condition. No concentrated effort had been made by Federal and State agencies to improve hay marketing. Field, market and laboratory studies, particularly of timothy and clover hay, showed that uniform standards were essential to an improvement of the situation.

Research studies in the marketing of beans and soybeans were started in 1922. One objective was national uniformity in standards for dry edible beans. By that time it also became evident that a relatively new crop to this country -- soybeans -- was developing rapidly, and that uniform standards were needed if growers were to receive equitable prices for their production. Studies of marketing and grading problems for dry peas were begun in 1930.

Studies in seed marketing have been directed toward developing service work in market information, standardization, and certification. Methods of marketing forage seeds from country points, and of determining dockage and some factors of quality in country-run seeds also are being studied.

Grades for all important hays

Hay studies have evolved simple grading and classifying factors by which it is possible to grade hay by approximately uniform methods. An outstanding feature has been the development of a method for accurately measuring color as a factor in determining grade; this involves the matching of a sample of hay with known color values. The several studies have resulted in the promulgation of official U.S. standards for grades of all of the commercially important hays and the more frequently traded mixtures as described in the Handbook of Official Hay Standards issued in 1936. Standards have been established for alfalfa and alfalfa mixed hay; Timothy and clover hay; prairie hay; Johnson and Johnson mixed hay; grain, wild oat, vetch, and grain mixed hay; Lespedeza and Lespedeza hay; soybean and soybean mixed hay; grass hay; mixed hay; and straw.

The standards are used in current trading practice, inspection, and market reporting. They simplify the marketing of hay by affording a definite basis of quality.

Decreases in the commercial movement of hay and shifts in producing areas in recent years have placed the emphasis on the production of quality hay for farm consumption rather than for market. Work is now being done in cooperation with the Extension Service toward carrying information to growers relative to the Federal standards for hay and the relation to quality and feed value.

Beans, soybeans and peas

Standards of quality have been developed for dry beans, soybeans, dry peas, and split peas. Standards for dry edible beans were recommended in 1927 and promulgated as official U.S. standards in 1931. They were revised in 1935 to include miscellaneous types of beans and to provide for quality determination of thresher-run beans. Tentative standards for dry peas, established in 1931, were revised and promulgated as official U.S. standards in 1936, and expanded in 1937 to provide official U.S. standards for split peas. Tentative standards for soybeans, first published in 1925, were amended and promulgated as official in 1935.

Seeds

Marketing research has not resulted in establishment of official standards for seeds, inasmuch as the State agricultural colleges, the U.S. Department, and the seed trade have preferred that factors of quality in seeds be evaluated without establishing a series of grades. A number of seed producing states have established seed certifying associations which certify improved varieties as "certified seed" or "State certified seed." Because of the large interstate movement and distribution of alfalfa and red clover seed, the verification or certification of origin of these seeds is made by the Federal Department. Since late 1938, official dockage inspection has been provided for timothy seed, and it is planned to extend this service to include other country-run forage seeds.

Inspection and Certification

Hay inspections have declined

Official inspection and certification of grades for hay are available at 20 markets where Federal licensed inspectors are stationed. Inspectors are also located in shipping areas in 9 states, and are available for making inspections at points easily accessible from their stations.

Hay inspections now total approximately 8,000 yearly, a materially smaller number than in some of the earlier years of the service. In the 1928-29 season the record high of 38,000 inspections was made, but changes within the past few years have brought the number to a sharply lower level. These changes have included the shift from rail to truck transportation, disappearance of most of the big hay markets, the greatly reduced number of horses in cities, the smaller horse population on farms, the shifts from grass hays to legumes, and the increased production of hay for local use in areas that formerly shipped in most of their hay requirements.

Increased interest in the purchase of hay by grade on the basis of official inspection and certification recently has been shown by large consumers, such as commercial dairies and state agencies. Purchase of hay according to Federal grades -- requiring inspection -- is mandatory by the War Department and other Federal agencies.

Inspectors licensed to make commercial inspections are located at Boston, Philadelphia, Washington, Albany, Norfolk, Atlanta, Birmingham, Chicago, Kansas City, Denver, Oklahoma City, Fort Worth, Houston, San Antonio, Spokane, Seattle, Portland, Los Angeles, and San Francisco. Qualified inspectors are located also at shipping points in New York, Alabama, Mississippi, Nebraska, Wisconsin, Oklahoma, Nevada, Washington, Oregon, and California. Regional supervision offices are located in Washington, Chicago, Atlanta, Kansas City, Denver, Spokane, Seattle, Portland (Oregon), San Francisco, and Los Angeles.

Beans and peas: Inspections have increased.

Inspections of beans, soybeans, and peas was started on a small scale in 1926. At first it was confined to dry edible beans and soybeans, and to a very few markets. Later, when standards for dry peas and split peas were developed, inspection was extended to these commodities. From 553 inspections of dry beans in 1926, the service was expanded to approximately 6,000 inspections in the 1938-39 marketing season. Soybean inspections increased from 152 in 1926 to approximately 27,000 in 1938-39. Inspections of dry peas and split peas increased from 572 in 1933 to 2,294 in the 1937-38 season, but dropped off in 1938-39 because of the short 1938 crop of marketable peas.

With soybeans, the basic grade is important. This commodity is sold or consigned to terminal markets and mills by local elevators and settlement made on the basis of grades assigned by licensed inspectors at destination. Any grade is usually acceptable, but in order to determine whether the soybeans meet requirements of the basic grade and to fix equitable discounts if they fail to meet that grade, it is essential that there be close supervision, by an unbiased agency, of the application of the grades at destination. Sales for export usually are for U. S. No. 2 Yellow. Federal certificates issued at port of shipment are accepted as final evidence of grade. Licensed inspectors are located at all lake, seaboard, and gulf points where soybeans are loaded for export as well as at interior markets. This service has facilitated the domestic and export sale and movement of this commodity.

The right of appeal to the supervising agency in case of dispute as to grade is important in the marketing of these commodities. Any grower, shipper, or manufacturer -- or any other party who has a financial interest in the product involved -- is entitled to the appeal privilege. This affords an opportunity for the supervisor

to check the accuracy of the original grade and tends to promote greater confidence between buyer and seller in the quality of the products involved, as well as in the value of the certification of inspection.

The consumer demand for dry edible beans confines each purchase to a definite grade. Rarely is a substitute grade acceptable to the purchaser. This necessitates the accurate determination of grade at original shipping point and the issuance of official certificate as evidence of such grade. Beans also are inspected in some instances before recleaning or processing. The inspection certificate, which shows the class and percentages of defective and sound merchantable beans, provides a basis for evaluating the beans offered for sale by growers.

In the orderly marketing of dry peas it is essential that certificates of class, quality, and condition be issued at original shipping point, whether whole peas at growers' and dealers' warehouses or split peas at manufacturers' plants. Under the current system of marketing dry peas by growers the inspection for class, dockage and defects in the thresher-run peas is of major importance. Uniformity in method of procedure in determining such dockage and defects can be brought about only by centralized supervision.

Alfalfa and red clover verified as to origin

The U.S. seed verification work was inaugurated in October 1927. Its purpose is to let the buyer know the correct origin (place where grown) of any lot of alfalfa or red clover seed that is accompanied by a verified-origin seed certificate. Extensive studies of seedsmen's records were made in devising methods of verifying the origin of these seeds.

A complete system of records is kept by dealers enrolled in the service. The careful supervision and checking of their records as well as of the records kept by country shippers make possible the tracing of origin of every lot of alfalfa and red clover seed that is handled by any verified-origin seed dealer. This check is possible at all stages of marketing from the time the seed leaves a grower or the hands of a country shipper until it is received, cleaned, bulked, and shipped to the farmer or retail dealer. All of the stock records pertaining to the seeds in question, together with the samples and stocks of the dealer, are subject to supervision of Federal seed inspectors.

Detailed information regarding shipments of alfalfa and red clover seed from each of the important districts is obtained. This information is checked with the records of verified-origin seed dealers and shippers. Shipments of verified seed to hundreds of farmers and country merchants are checked by means of the lot numbers shown on tag certificates and by comparison of the samples collected with those on file in the offices of verified-origin seed dealers.

Alfalfa or red clover seed of definite origin can now be purchased almost anywhere in the United States. The 99 verified-origin seed dealers in the country handle more than 85 percent of the alfalfa seed produced in northern and central producing areas and handled in commerce. In addition they handle large quantities of verified-origin red clover seed.

Through this work, the seed marketing situation has improved by eliminating much of the misrepresentation of origin and many mixing or other unethical practices. The work has aided in weeding-out careless and unscrupulous shippers. It has increased the premiums paid for seed from the States that produce the hardiest seed. It has made for fairer competition in the merchandising of seeds.

Seed dockage inspection

Seed dockage inspection of country-run forage seeds was started in October 1938 with timothy and timothy mixed seed with the expectation that other kinds of forage seeds would be included later.

One of the most important problems in marketing rough-cleaned or country-run forage seed is the determination of dockage. Up to the time this service was made available, dockage determinations were made largely by the purchaser or receiver of the seed after its arrival at destination. This method was not generally satisfactory as controversies often arose as to the accuracy of dockage determination. Certification of dockage by a Federal agency largely eliminates controversies.

It appears that both shippers and dealers recognize that the purchase of timothy seed on a clean-seed basis is the only way to give the producers of better seed commensurate returns for producing and marketing clean seed. This practice also tends to bring about better rough-cleaning at country points and to reduce the distribution of objectionable weed seeds.

Market News

Market news on grain, hay, and feed had its inception in 1916. The initial allotment of funds for the project was for the year 1918-19. Bi-weekly reports gave information on sources of supply for grain and hay, stocks in dealers' hands, market receipts, shipments and prices.

During the 1939-40 season, field offices are located at Minneapolis, Chicago, Kansas City, Atlanta, Portland(Oregon), San Francisco, and Los Angeles. Commercial correspondents are located in other important markets. Weekly reviews are issued on grain and feed from Washington and all field offices. A weekly rice review is issued from Washington and San Francisco; a special weekly review on grain, hay, and feed from Atlanta; a weekly alfalfa review from Kansas City, Los Angeles, and Portland; a weekly bean report from San Francisco and Los Angeles; and a weekly summary of the hop market situation from Portland and San Francisco. The information is disseminated by press and radio, and through mimeographed releases mailed to county agents, farm organizations, leading growers and dealers, and others who request them.

L I V E S T O C K , M E A T S , A N D W O O L

Livestock, Meats, and Wool Division

C. V. Whalin, In Charge

The work of the Livestock, Meats and Wool Division
embraces five major activities:

- (1) Market news
- (2) Meat grading and stamping
- (3) Research in standardization
- (4) Educational demonstrations
- (5) Wool scouring research.

The purpose of these activities is primarily to facilitate trading and distribution in these commodities -- thus to contribute toward greater market stability and price uniformity. Improved production operations and a better readjustment of production and distribution to prevailing demand conditions result indirectly.

Livestock market news is disseminated from 29 public live-stock markets and from producing centers where direct trading is practiced to a large extent. Market news information on meats is made available from five wholesale distributing centers. The Boston wool market report covers trading in this commodity.

A meat grading service is maintained in 24 cities in 17 States and the District of Columbia.

The identification of meat by grade, and the stamping of the grade name on the meat enables consumers to buy their meat according to grade and thereby be assured of getting the quality they want.

Market News

Reliable market news is practically a necessity for every one who produces, buys, or sells. Without accurate and timely information regarding supplies, demand, commercial movement, trade conditions, and prices in available markets, one cannot hope to obtain the best returns for his efforts or money.

For more than 20 years information of this character has been made available each market day on livestock and meats. This service was started in late 1916 when provision for it was made in the Agricultural Appropriation Act approved by Congress in August of that year.

In inaugurating the service attention was first given to the collection and dissemination of information on current supplies and prices of meats and the demand for these products. Later, in 1918, the service was broadened to include market conditions and prices on livestock at several midwestern markets, and in 1924, it was expanded to include information on trading in wool at Boston, the largest wool-marketing center of the country.

Market news on livestock is now disseminated from 29 public markets, and from several large producing areas where direct trading is especially important and has considerable influence on the general price structure for livestock. The 29 public stockyards markets covered by the service are located in Baltimore, Brighton (Boston office), Buffalo, Chicago, Cincinnati, Denver, Fort Worth, Houston, Indianapolis, Jersey City (New York office), Kansas City, Los Angeles, Louisville, Montgomery, Nashville, National Stockyards (East St. Louis, Ill.), New York City, North Portland (Oregon), North Salt Lake City (Ogden office), Ogden, Oklahoma City; Omaha, Peoria, San Antonio, San Francisco, Sioux City, South St. Joseph, South St. Paul, and Wichita.

Direct Marketing

Areas in which direct buying and selling operations are reported include central and northern Iowa and southern Minnesota which comprise the most important swine-producing area of the country; the Intermountain and Pacific Coast States, where sheep and lamb production is especially important; and the Southeastern States of Georgia, Florida, and Alabama, where cattle and hog production appears to be increasing. In these areas much of the livestock, instead of being sent to the public stockyard markets for sale, is sold locally, at concentration yards, local packing plants, or on the farm. This direct method of marketing has increased greatly in recent years and with its growth the market news service has been expanded to serve those who buy and sell direct as well as those who make use of the public stockyard markets.

The Division's offices at Casper, Wyo., (with temporary office at Scotts Bluff, Nebr. 4 months every year), Ogden, and San Francisco report the direct and contract sales of sheep and lambs in the Intermountain and Pacific Coast States. Hog buying operations at 10 packing plants and approximately 22 concentration yards in interior Iowa and southern Minnesota are reported by the office located at Des Moines, Iowa. Cattle and hog buying and selling operations in the Southeast are reported by offices located at Thomasville, Ga., and Montgomery, Ala. In this area, buying and selling operations are carried on at seven packing centers and at various auction markets, stockyards, and cooperative sales yards.

Service includes meats, wool

The market news service on wholesale meat trade operations is conducted in five of the larger cities that are especially important as wholesale distributing centers. These are Boston, New York, Philadelphia, Chicago, and San Francisco. Boston is also the leading wool market and the service on wool covers the trading there in this commodity.

State cooperation

In some States the State departments of agriculture cooperate in maintaining and operating part or all of the market news service carried on within the State. These include Alabama, California, Florida, Minnesota, Tennessee, Texas, and Utah.

Getting the information

Each branch office is manned by a corps of trained workers, each a specialist in his particular field. On the smaller markets one man reports on all three kinds of livestock, but at the larger markets one is assigned to cattle, another to hogs, while a third covers sheep and lambs. Each man spends most of the trading day on the particular section of the market to which he is assigned, leaving it only for brief intervals to file dispatches or prepare reports for transmission by telegraph or radio broadcast and for the press. After trading has ended he prepares a more detailed report for mimeograph release through the mail.

In gathering information the reporter is constantly in the midst of the hustle and bustle of the market. He observes the activity of the buyers and sellers, learns their bid and asking prices, and confers with them frequently to learn what they are doing and to get the "feel" of the market. The reporter thus quickly senses the trends and shifts, not only of prices but of sentiment as well, and he promptly incorporates his information in reports immediately disseminated to the general public.

Reporters who cover the direct buying and selling operations over a wide area use the telephone extensively in making contacts with buyers and sellers. They also make frequent trips through their territory, calling at packing plants and sales yards and talking with those who are in position to supply information.

In most respects the method of reporting the wholesale meat markets is similar to that of reporting the livestock markets. The meat-market reporter visits the wholesale coolers and storage rooms where meats are held for sale. Here he observes the dealers, jobbers, and retailers as they inspect the various offerings and make their bids and offers. He notes the volume of available supplies, the urgency of the demand, and the tone of the market. He ascertains the class and grade of meat being sold so that he can convey to others a definite idea as to prevailing prices. The information gathered is quickly transmitted by leased wire telegraph to the various livestock markets where it is posted on readily accessible bulletin boards and made promptly available to buyers and sellers.

Trading in wool is different from trading in livestock and meats. Probably three-fourths of the domestic production of wool eventually is marketed in Boston. Here are hundreds of dealers, mill agents, importers, and manufacturers; and large warehouses where the wool is assembled and stored. Much of the trading is done by telephone, telegraph, and cable, and at the lunch table when a buyer and seller get together. The wool reporter is confronted with the problem of getting the confidence of these buyers and sellers, and learning from them what sales have been made or are in the process of negotiation, the prices asked and bid, the volume of wool available by class and grade, and the general feeling and trend in the market. His work not only requires a thorough knowledge of wool grades but the ability to appraise the information that comes to him from the standpoint of reliability and accuracy.

In addition to the interviews, all reporters have frequent opportunities to inspect the records of the various individuals and agencies engaged in buying and selling. Access is had to the records of transportation and stockyard agencies relating to shipments and receipts. Information is obtained from those engaged in producing and feeding livestock and from concerns that slaughter livestock and process meats. Through these sources of information the reporters are able to prepare detailed and accurate statements regarding supplies, demand, prices, and the various developments that might be of interest and assistance to producers, buyers, and sellers.

Reports obtained daily from railroads are utilized in estimating the livestock receipts for the current day and the prospective supply for the following day. These estimates are not only helpful to the buyers and sellers in arriving at a price basis, but they are used by shippers in regulating the movement of stock to market. They serve also as a guide to those at distant markets and slaughtering centers who buy on order, from the markets with larger supplies.

Reports widely distributed

Most of the livestock, meats, and wool offices are supplied with the Bureau's leased wire facilities. Offices not on the leased wire circuit receive and transmit information by commercial wire. Telegraphic market information is made quickly available to the public and to the trade by posting the various reports on bulletin boards and by means of radio, telephone, press, and mail.

Special reports are prepared daily for distribution by press associations to their members, and by the local press, radio broadcasting stations, and the CND service of the commercial telegraph agencies. Other periodic reports prepared or originating in the Department of Agriculture and of interest to livestock producers and those engaged in buying and selling livestock and meats also are widely disseminated through the market news facilities. Such reports cover stocks of meat in storage, monthly slaughter, pig and lamb crops, the number of livestock on feed, the number of animals on farms, and various analytical reports relating to the livestock and meat situation and outlook.

Meat Grading and Stamping

Meat grading was started in 1923 as a special service to the United States Steamship Lines. Since that time a large number of steamship lines, hotels, restaurants, railroad dining car services, Veterans Hospitals, State, county, and city institutions and other users of large quantities of meats have specified their requirements with respect to quality in terms of U.S. grades. They have required that deliveries of meats bear the acceptance stamp of an official grader, indicating that he has examined the meat and accepted it as meeting the requirements for the grade specified in the contract.

The meat grading service has enabled purchasers to buy meat on the basis of contract awards and thus has made it possible for them to get the grade of meat desired at the lowest price obtainable. The service is maintained in 24 cities located in 17 states and the District of Columbia. During 1938, meats were graded for 53 institutions in 10 states and the District of Columbia.

The grading of meat and the identification by grade by stamping the grade name on the meat were inquigurated in 1927. This work was first confined to beef, but subsequently was extended to lamb and veal. Stamping the grade name on the beef after it has been graded enables consumers to select their meat according to grade and be assured of getting the grade they desire to buy.

Grading expanded rapidly

The grading and stamping service on meats and meat products has expanded rapidly during the past 10 years. The following table shows the number of pounds, by classes, graded during the calander years 1930, 1937, and 1938.

Classification	1930 (Pounds)	1937 (Pounds)	1938 (Pounds)
Fresh and Frozen			
Beef	68,749,576	408,352,544	602,809,163
Veal and Calf	1,442,573	5,013,881	6,180,318
Lamb and Mutton	2,469,591	23,764,594	28,015,418
Pork	1,816,067	3,116,743	3,864,145
Cured			
Beef	790,514	2,915,365	2,754,226
Pork	2,871,936	21,637,907	30,383,026
Sausage	553,481	38,380,743	40,957,099
Other Meats and Lard	893,683	2,872,376	2,871,084
Total	79,587,421	506,054,153	717,834,479

Benefits from grading and stamping service

It is impossible to determine the extent to which the grading and stamping service has improved the demand for the higher grade meats, but it undoubtedly enables consumers to select the grade of meat that suits their purposes regardless of how limited their knowledge may be of the factors that determine the different grades. Consumer preferences for meat by grade may therefore be reflected back through the retail and wholesale prices to the livestock market and thus tend to establish the relationship between the prices of different classes and grades of the live animals on the basis of the relative consumer demand for the different grades of meat.

Grading and identification of meats by grade also facilitate wholesale and retail trading. They provide a basis for better understanding between buyers and sellers and eliminate the necessity of personal inspection of the product before buying. They also provide a basis for price adjustments in the event of the delivery of meat of a lower grade than that specified and protect the shipper against the refusal of meat that is of the grade specified.

Grade Standardization Research

The grade standardization research includes the development of grade standards for each kind of livestock and meat for use in market reporting and in carrying on the grading service. It involves the determination and appraisal of all the factors and attributes inherent in a product that may in any way affect its value or relative desirability.

Arriving at the grade

The first division in sorting and classifying livestock is on the basis of use, i.e., whether, for example, the animals are to be used for further feeding or for immediate slaughter. After this separation is made, the animals are segregated and classified on the basis of sex characteristics, as these are very important in determining value. Groupings according to sex characteristics, such as steers, heifers, and cows, are generally designated as "classes" and these are frequently further subdivided into weight groups because weight often is considered by buyers and sellers in arriving at a price basis for trading. The final subdividing is on the basis of grade, and in this grouping the sorting is done on the basis of inherent characteristics that denote desirability for specific purposes. The factors and attributes that determine grade are more difficult to isolate and define than those which differentiate the broader groupings made according to sex and weight.

Some 20 years ago each important market and producing area had its own standards for livestock which were understood by only those entirely familiar with that particular market or area. Since livestock standardization work has been in progress, standard market classes and grades have been developed for all kinds of livestock, and these are uniformly applicable at all markets where livestock is bought and sold.

The grade standards for carcass meats correspond with those for slaughter livestock. They provide the basis for the meat grading and stamping service and for quoting wholesale meat prices on the basis of class and grade. These standards also facilitate wholesale and retail trading and enable consumers to select and be assured of the delivery of the grade of meat they prefer and wish to purchase. Producers, therefore, are in position to adjust their livestock production to consumer demand as reflected in the relative demand for each class and grade of meat and the corresponding class and grade of livestock.

Standards have been developed for wool. These provide for the segregation of wool into grades on the basis of the diameter of fiber. They serve as a basis for quoting prices for wool by class and grade and are used extensively in wool trading.

Grade Demonstrations

Producers, wholesalers, retailers, and consumers are made familiar with the U.S. standards for livestock, meats and wool by means of educational demonstrations in which actual grading is done before assembled groups. These demonstrations, held in co-operation with the State Agricultural Extension Services and various cooperative groups of producers, encourage the use of the U.S. standards and enable producers to interpret market reports more intelligently. During the past 10 years approximately 500,000 persons have attended these grading demonstrations. Demonstrations of cattle, lamb, and wool grading have been held in the Western Range States, some of the Corn Belt States, and in practically all of the Southeastern States. Wool grading demonstrations have been held in several of the midwestern wool producing states. The giving of information regarding proper care and preparation of the wool for market, as well as segregation by grades, forms an important part of the service rendered to producers, shippers, and dealers.

Wool Shrinkage Investigations

As wool is shorn from the sheep it contains varying amounts of such foreign material as grease, dirt, and vegetable matter which must be removed before the wool can be made into cloth. This foreign material is removed by scouring with water and cleansing compounds and is usually done after the wool has been sold by the producer.

Shrinkage affects prices

Because of the great variation in the quantity of foreign material in raw wool as it comes from the sheep, it has long been the practice to quote wool prices in Boston, the leading market, on a scoured basis rather than on a grease basis. Since the wool producer usually has little information as to the actual shrinkage of his wool when scoured, he is not in position to know the true market value of his product in terms of prices quoted. His wool, however, is sold on a grease basis, with the buyer as a rule making his own estimate of the probable shrinkage and thus determining the price that will be paid on that basis.

What has been done

If a reliable method could be developed for ascertaining the clean wool content of grease wool before either the entire clip or a relatively large sample has been scoured, it would place wool producers in a much stronger position in selling their product. Thus far no satisfactory method for doing this has been devised, but considerable progress has been made in the

wool scouring laboratory. In this laboratory scouring tests are conducted with thousands of samples of grease wool selected according to various methods from clips produced in the western wool producing areas. Ultimately it is expected that methods of selecting small samples can be developed which will make it possible to determine readily and with a reasonable degree of accuracy the approximate yield of clean wool in any particular lot of grease wool.

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P A C K E R S A N D S T O C K Y A R D S A C T

Packers and Stockyards Division

Dr. F. W. Miller In Charge

The function of this Division is to administer the provisions of the Packers and Stockyards Act as passed on August 15, 1921. The purpose of the Act is to regulate the business conduct of the packers, the stockyards of the country, and the operators on such yards, insofar as their transactions are in the current of interstate commerce. As amended in August 1935, it also covers the marketing of live poultry in designated cities or markets.

Briefly, the Act is intended to prohibit unfair practices and to establish reasonable rates for services rendered in the marketing of livestock and live poultry.

Types of cases handled vary from the falsification of weight certificates and other misrepresentations to those of a more complex nature such as combinations of packers to control prices or apportion territories for purchases.

Administration of the Act

The livestock and meat packing industry is one of the largest in the United States. For many years, prior to the passage of the Packers and Stockyards Act, livestock producers had complained of unsatisfactory conditions in the livestock markets and meat-packing industry. Demands were made that the Federal Government exercise general supervisory authority over various phases of this activity. Many hearings were held before committees of Congress at which it appeared there were specific evils of which legitimate interests in the industry disapproved but could not combat.

As a result, Congress passed the Packers and Stockyards Act in 1921 and charged the Secretary of Agriculture with its enforcement. The Secretary in 1928 designated the Chief of the Bureau of Animal Industry as the officer in immediate charge of the administrative phases of the enforcement activities, and the Packers and Stockyards Division was set up in that Bureau. The Departmental reorganization program outlined in October 1938 provided for the transfer of the administration of the Act to the Agricultural Marketing Service.

Prevents and corrects abuses

The Act imposes on the Secretary of Agriculture the duty of preventing and correcting irregularities or abuses on the part of persons engaged in the livestock and meat packing industry. It prohibits unfair, unjustly discriminatory, and deceptive practices or the control of prices, or the establishment of monopolies. Authority is given to the Secretary to supervise and control rates and charges of stockyard companies and market agencies at public stockyards throughout the country. By an amendment enacted in 1935 the scope of this authority was extended to include persons dealing in and handling live poultry in interstate commerce in areas designated by the Secretary.

As of July 1, 1939, there were 182 stockyards under supervision. Approximately 4,600 market agencies and dealers were registered to operate at such stockyards. The number of cases receiving final action during the 1938-39 fiscal year totaled 102, and there were 37 pending on July 1, 1939. Sixteen poultry markets were under supervision, and approximately 1,700 licenses at these markets were in effect.

Investigations, and how they are made

A field force is maintained, consisting principally of supervisors, investigators, accountants, and engineers stationed at the larger stockyard centers throughout the country. The supervisors keep in daily touch with marketing conditions at the stockyards

under their supervision. They receive and investigate informal complaints relating to unfair practices, and they see to it that stockyard companies, market agencies, dealers, and poultry licensees comply with provisions of the Act in the handling of livestock and live poultry. Complaints relative to the activities of packers in the purchase of livestock at the stockyards are usually investigated by the supervisors.

Other complaints dealing with packers' activities at points away from the public markets are generally handled by special investigators from the Washington office. The accountants assist the investigators, when necessary, by making audits of the books and records of persons subject to jurisdiction. They also make routine financial audits of the books of stockyard companies and market agencies and, under the direction of the chief accountant, they prepare audits and tabulations of records in preparation for hearings regarding the reasonableness of the rates and charges of stockyard companies, market agencies, and poultry licensees.

Varied misrepresentations, abuses found

In investigations relating to unfair trade practices the reports of the investigators are submitted to the Solicitor of the Department for consideration. If the facts warrant, a formal inquiry is instituted. These cases range from a simple type -- such as that involving failure to account properly to a consignor for a shipment of livestock -- to involved and complex cases such as those relating to combinations and agreements on the part of packers to manipulate or control prices or to apportion purchases of livestock and the sale of packing-house products and the territories in which such purchases and sales are made.

In one case of the latter type, 13 packers were named as respondents. The hearing extended intermittently over a period of more than 2 years, and the record of the testimony in the case covered more than 25,000 typewritten pages. In addition, there were thousands of pages of exhibits and the number of witnesses examined ran into the hundreds. This case culminated in a finding by the Secretary that 12 of the respondents had violated the Act by combining and agreeing on the prices to be charged for meat in certain States, and an order was issued requiring those respondents to cease and desist from such violations.

Reasonable charges are determined

Determination of the reasonableness of the charges made by a stockyard company is similar to the determination of the reasonableness of rates charged by public utilities, such as electric light and gas companies. The courts have laid down certain rules that must be observed in proceedings of this kind, and these rules

are followed in stockyard rate cases. They involve the determination of the fair value of the property used by the stockyard company in rendering the services for which the rates under investigation are charged and the determination of a fair rate of return on that value.

Valuation engineers, in advance of the hearing, make a complete appraisal of all the property owned by the stockyard company. Accountants are detailed to make thorough audits and analyses of the books and records of the company in order to ascertain the facts pertaining to operating income and expenses, depreciation reserve, and other accounting data necessary to develop a full picture of the company's operations. Such valuations have been made of the properties of practically all of the principal stockyards of the country, and orders have been issued after full hearings prescribing schedules of reasonable rates at a number of the larger markets.

Inasmuch as market agencies, commonly referred to as livestock commission men, ordinarily require the use of little property in the conduct of their business, the approach to the problem of determining the reasonableness of the rates and charges they make for buying and selling livestock is necessarily somewhat different from that used in stockyard rate cases where the element of property is of primary importance. In commission rate cases it is necessary to determine what constitutes a reasonable cost for rendering the services performed by the commission men. These services are essentially of a personal character. The procedure developed for determining this fact has received the approval of the United States Supreme Court as being lawful and reasonable. Hearings have been held at practically all of the principal markets in the country relative to the reasonableness of commission charges and orders have been issued prescribing reasonable rates. Savings in commission rates of more than a million dollars annually have been made for the shippers who patronize those markets.

Scales checked regularly

Almost all livestock and live poultry are sold in the markets on the basis of weight. It is important, therefore, that the scales used in determining weights be accurate and that they be properly operated by competent weighers. Recognizing this fact, weight supervisors inspect the scales and observe the weighing at stockyards and in designated poultry areas. They also supervise the testing of the scales to determine their accuracy. Any scales found to be inaccurate are required to be repaired or otherwise altered so as to be in a satisfactory weighing condition.

Accurate records required

Very important in the marketing of livestock is the prompt and faithful accounting to the shipper or producer for the proceeds from the sale of his livestock. As a safeguard, livestock commission firms and dealers at posted stockyards are required at all

times to maintain bonds or satisfactory substitutes to insure the faithful performance of their obligations to pay the shipper his proceeds and to pay for livestock purchased. In addition, these agencies, as well as others subject to the act, are required to maintain adequate books and records showing clearly all transactions involved in their business and to render annually reports setting out the financial results of their operations.

As a measure of protection to shippers of live poultry the Act provides that the Secretary shall not issue a license to a person to handle live poultry in interstate commerce if he finds, after hearing, that such person is financially unable to fulfill the obligations he would incur as a licensee.

Annual savings exceed \$1,000,000

It is estimated that annual savings of more than \$1,000,000 have been realized by producers and dealers through the administration of the Packers and Stockyards Act during the past several years. The more obvious savings have resulted from the establishment of reasonable service charges.

As the result of an order prescribing reasonable commission rates at the Chicago market more than \$1,000,000 in cash, representing excess charges collected from producers during litigation of the case, was refunded by the commission men. Following a hearing on its rates the stockyard company in Chicago voluntarily submitted a schedule of lower charges which it is estimated resulted in savings to producers of approximately \$200,000 a year. In Denver lower rates prescribed after a hearing resulted in saving producers approximately \$47,000 a year in stockyard charges. In all, reasonable commission rate schedules have been prescribed at 11 markets and reasonable stockyard rate schedules at six markets, including the largest ones in the country. Recently an order was issued prescribing commission rates at Kansas City in which the disposition of approximately \$600,000 excess charges impounded with a Federal court by commission firms is involved.

Cases decided during the April-June 1939 period have brought a 1-year suspension of a Kansas City livestock commission firm for irregularities in payments to producers, a 6-month suspension of a Los Angeles commission company for losses suffered by livestock producers because of misrepresentations of an agent, a year's suspension of Chicago dealers for counterfeiting scale tickets, and fines of \$250 and \$500 on two Brooklyn poultry handlers for operating in interstate commerce without licenses.

F E D E R A L S E E D A C T

Enforcement of The Federal Seed Act

W. A. Davidson In Charge

The major activities of this Division are three:

- (1) Enforcement of the Federal Seed Act
- (2) Seed testing
- (3) Research incident to seed control

The Federal Seed Act prohibits the fraudulent misbranding of seed in interstate commerce. Much of the work being done in the enforcement of the Act is with the help of the States. Many States have found that the cooperative efforts under the Act brought great improvement in the labeling of seed moving into those States. Approximately 20 kinds of seed are regulated as to the quality required for importation into this country.

A seed-testing laboratory is maintained in Washington. Four additional laboratories are operated cooperatively with Indiana, Missouri, California, and Oregon.

Through the research work in the Division, efforts are made to develop and standardize methods of testing seeds. The effect of storage on seed germination also is studied. The Division is endeavoring to develop methods of identifying varieties by seed or seedling characteristics.

Administration and Enforcement

The Federal Seed Act prohibits the fraudulent misbranding of seed in interstate commerce. Most states have established a system of seed control that results in periodic inspection of seed offered for sale for seeding purposes in the state. In view of this, the Federal Government does not duplicate the inspection but cooperates with the state in any case in which the state inspector finds misbranded seed offered for sale after having been shipped in interstate commerce. The Federal Government assists the state in developing the case which, if prosecuted, must be brought in Federal court. The Department has published a series of service and regulatory announcements giving brief summaries of the violations of this provision of the Act. Efforts are made by contacts with the trade and through publicity to encourage trade practices that would minimize misbranding.

Many seeds regulated as to quality

Approximately 20 kinds of seed are regulated as to the quality required for importation into the United States. These seeds must be at least 65 percent pure live seed and must not have in excess of 3 percent of weed seeds. In addition, certain kinds of seeds must meet special requirements; for example, alfalfa or red clover having dodder in excess of 1 seed in 5 grams of the former, is prohibited entry into the commerce of the United States. Such seed is considered unfit for seeding purposes. Seed is considered adulterated and is prohibited entry if it contains 5 percent of some other kind of seed of similar appearance and of lower market value. Importations consist mainly of seed for forage crops which have become of increasing importance to agriculture in recent years. The prohibition against the importation of low quality seed is a definite protection to the planter. Statements are issued twice a month showing the quantity of seed imported.

Imported alfalfa and red clover seed stained

Alfalfa and red clover do not have distinguishable strains or varieties, but a wide range of adaptability of these crops has developed as a result of the environmental conditions in the different areas in which the seed is produced. To protect the farmer from planting seed that is not adapted to conditions in his locality, all imported alfalfa and red clover seed is stained with a color that shows its origin or relative adaptability. Unadapted seed is stained 10 percent red. Seed that is not so definitely unadapted to conditions in this country is stained 5 percent green. Alfalfa and red clover seed from Canada is stained 1 percent violet.

Seed Testing Laboratories Maintained

Seed tests are made in the seed laboratory in Washington and in the Cooperative Federal-State Laboratories in Lafayette, Indiana; Columbia, Missouri; Sacramento, California; and Corvallis, Oregon, in the enforcement of the Federal Seed Act. Tests are also made for Federal agencies, State agencies, seedsmen, and farmers for the purpose of ascertaining germination, purity, and weed seed content. Tests are made to determine the variety or type of seed of some kinds of crops. The laboratory in Washington has served as a referee laboratory to which interested parties might submit samples for test in settling controversies. Tests for private and commercial interests are limited to a fixed quota per month. This quota in the past has served to meet the needs of practically all interested parties.

Seedsmen who ship seed in foreign commerce, often find it essential to obtain a test that will be acceptable by the foreign purchaser. The International Seed Testing Association makes arrangements for such tests, provides uniform report forms to its members, and formulates the rules under which the tests are made. Tests for International certificates and all tests involved in the enforcement of the Federal Seed Act are given preferential treatment in the seed laboratory.

Research in Seed Control

Seeds of crops are studied in order to develop adequate methods of testing. To administer the provisions of the Federal Seed Act with equity, it is essential that adequate methods of testing be standardized so that different laboratories or seedsmen may obtain results comparable with those of the enforcing agency.

In order to avoid difficulty caused by the constantly changing germination ability of seed, information must be available that will make it possible to predict the behavior of germination under known storage conditions. This information will serve to guide the enforcement agency in cases involving such factors, and will help the dealer to avoid delivery of misbranded seed. The effect of storage conditions such as moisture and temperature upon the germination of seed is being studied.

To make it possible for the farmer to obtain the variety of seed best adapted to his needs, means by which the varieties might be distinguished by seed or seedling characters are being studied. The ability to make such determinations would foster correct labeling as to variety.

T O B A C C O

The Tobacco Division

Charles E. Gage In Charge

The establishment of standards for the classification of types, grades, and other characteristics of tobacco is fundamental to the activities of the Tobacco Division. The work, revolving around such standards, is comprised within the following activities:

- (1) Standardization and research
- (2) Inspection
- (3) Demonstration
- (4) Market news
- (5) Quarterly stocks reports

Authority for the work of the Tobacco Division is contained in the Tobacco Inspection Act approved August 23, 1935, and the Stocks and Standards Act approved January 14, 1929, with subsequent amendments.

Inspection of tobacco may be mandatory, as in the case of designated auction markets, or may be rendered upon the request of any interested party. The quantity inspected increased from about 122 million pounds in 1935 to 275 million in the 1938-39 season. Inspection, together with market news, provides the grower with grade and price information by which he may protect himself against erratic prices incident to rapid sales. Through demonstrations as to factors of quality, growers are guided in sorting their tobacco into different grades.

Standardization and Research

Research leading to the promulgation of standards for types and grades of tobacco was begun in 1920 under the United States Warehouse Act. Authority for the establishment of standards is now provided in the Tobacco Inspection Act and the Stocks and Standards Act.

A classification of tobacco types has been established and standard grades have been promulgated for several of these types. Tentative grades have been prepared for other types. Provision is being made for increased activity in this direction by which to arrive at a more scientific appraisal of the physical characteristics of tobacco, the elements of quality, and other factors recognized in tobacco standards.

These researches, coupled with appropriate investigations in the field and hearings with the tobacco trade, may lead to some modification of the existing standards and the promulgation of new standards for types of tobacco not heretofore covered. The need for research is indicated by the fact that tobacco undergoes progressive changes during fermentation and storage by which the character of the tobacco is modified in important respects.

Further research work on tobacco will include determinations of the moisture-holding capacity of various types and grades of tobacco and the relation that such capacity has to atmospheric conditions. This research is expected to lead to the establishment of a standard atmospheric condition under which numerous physical tests will be made in order to establish a more definite basis for tobacco standards.

Tobacco Inspection

Tobacco inspection is conducted under the provisions of the Tobacco Inspection Act of 1935. Inspections of tobacco may be mandatory as in the case of a designated auction market or it may be rendered upon the request of any interested party, such as grower, association, dealer, etc. The quantity of tobacco involved in these inspections, which give information as to quality and approximate value, increased from about 122 million pounds in 1935 to 275 million in the 1938-39 season.

The vast majority of inspections relate to the operation of auction markets and are provided without cost to the grower under Section 5 of the Act. Under this section, inspectors employed by the Department of Agriculture examine and certify according to grade, prior to the auction, each lot of tobacco offered for sale on a designated market. The grade of the tobacco is certificated on the basket ticket in order that the grower may have the benefit of disinterested and authentic information on the quality of each

basket he offers. Inspection, and the tobacco market news made available as a complement of the inspection work, provide the grower with grade and price information by which he may protect himself against erratic prices incident to rapid sales. No charge is made for this kind of inspection service. The manner in which farmers deliver their tobacco to market is not affected in any way, and growers still have their customary privilege of accepting or rejecting prices offered.

The Secretary of Agriculture is authorized to designate for free and mandatory inspection those markets on which the tobacco bought and sold moves in interstate commerce. This authority is qualified by the requirement that a referendum be held among the growers who patronize the market to ascertain whether they wish to have the service, and the further requirement that two-thirds of those voting must favor the work before a market can be designated. After a market has been designated for Federal inspection it becomes unlawful for the warehousemen to sell tobacco on that market if the tobacco has not first been inspected. Under this Act, which has been approved by the Supreme Court, 37 markets were designated before July 1, 1939. Demand for expansion of the service is active. Additional referendums will be held and other markets will be designated as rapidly as funds permit and the required personnel can be trained for service. During the 1938-39 season, more than 250 million pounds of tobacco were graded prior to sale at these auctions. Facilities have been expanded to care for about 500 million pounds of the 1939 crop.

The principal item of tobacco inspection not performed under the permissive provisions of the Act is that pertaining to Shade-grown cigar wrapper tobacco produced in the Connecticut Valley. This service is a phase of the operation of a marketing agreement between the Secretary of Agriculture, the Agricultural Adjustment Administration, and the associated producers and packers of Shade-grown tobacco, whereby the Secretary establishes minimum selling prices according to grade. These prices regulate the business transactions between the packers and the cigar manufacturers who purchase the crop, and the inspection of the tobacco according to Federal standards is required to make the agreement operative.

Demonstration of Tobacco Grades

The Tobacco Inspection Act also provides for the demonstration of tobacco grades to farmers and others, the object being to promote better preparation of tobacco for market. The activities under this project are conducted mainly by meetings of tobacco inspectors with small groups of growers, at which the growers are given actual demonstrations of the factors of quality in tobacco and the principals that should guide them in sorting their crop into different grades as a preliminary to tying in bundles for market.

Additional activities under this project relate to short courses of instruction held for vocational teachers and county agents and somewhat longer courses of instruction held at State agricultural colleges for advanced students. Such courses have been attended not only by students of the agricultural colleges, but by tobacco growers and their tenants, by warehousemen, and tobacco buyers. The number of individuals reached by these means has increased rapidly and during the fiscal year 1938-39 exceeded 62,000.

Market News

The furnishing of daily and weekly price reports on tobacco according to grade is an essential companion activity to the inspection service. Information on the grade of his tobacco is of little value to the grower unless he is provided simultaneously with information on the average selling prices of the various grades.

With specific information on grade, and the equally specific information on current selling prices, the grower is able to arrive at the approximate value of his tobacco and can decide whether the bid price resulting from the auction is fair and reasonable according to existing market conditions. When, and it often happens, it is found that the bid price is substantially lower than the current average for the grade, the farmer is able to make an immediate rejection of the sale and demand a resale. Since tobacco is sold at auction at rates of from 300 to 500 -- and often 600 -- lots per hour, errors of judgment leading to unreasonably low prices are numerous. This constitutes the fundamental weakness of the auction marketing system and the tobacco inspection and market news services are directed primarily at mitigating its effects.

In order to make price information available, employees of the Department of Agriculture follow the sale and gather up copies of the basket tickets. These tickets contain all the essential information for price reports -- the grade, the number of pounds, and the price. Tickets are assembled from the different markets selling the same type of tobacco and compiled for the publication of mimeographed daily and weekly reports. These reports are furnished to growers on the auction floors and are further disseminated by press and radio. In addition to the current price reports, the season market reviews are issued. These reviews cover the types of tobacco sold at auction in which are included average prices for each grade, market average prices and pounds sold on each market, and statistics to show the percentage distribution of the crop according to quality factors.

Two principal market news offices are maintained, one in Louisville, Ky., and the other at Raleigh, N.C. These are supplemented by temporary market news offices set up at other points as needed during the marketing seasons for the various types.

Quarterly stocks reports issued

The Stocks and Standards Act makes it mandatory upon dealers and manufacturers to report to the Secretary of Agriculture as of the first of January, April, July, and October, their holdings of unmanufactured tobacco according to types, groups of grades, and the form, i.e., stemmed and unstemmed. The figures are on a storage-order basis, by which is meant that through moisture losses and the stemming of some of the tobacco, some of the original weight of the tobacco has been lost. This information is published in what is known as the Quarterly Stocks Report, together with supplemental tables in which the figures are translated into farm-sales-weight equivalents.

These data on stocks of tobacco are basic to analyses of the present and prospective marketing situation and, therefore, are of interest not only to dealers and manufacturers themselves, but to farmers and agricultural leaders. In connection with statistics on production, they make it possible to compute the annual disappearance through consumption or exportation.

Under the Stocks and Standards Act, a comprehensive report of tobacco statistics is issued annually.

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U. S. W A R E H O U S E A C T

W a r e h o u s i n g D i v i s i o n

H. S. Yohe In Charge

This Division administers the United States Warehouse Act as amended. The primary objective of the Act is to aid in the more orderly marketing of farm products by establishing a nationwide system of supervised warehouses whose receipts will be accepted without question as collateral for loans. The Division's principal activities consist of

- (1) Investigation of applicants for license
- (2) Careful supervision of the operations of all licensees
- (3) Control over warehouse receipts

Producers, producer cooperatives, merchants and other financially interested parties are protected by warehouse receipts that show the quantity, quality, and condition of products received into storage. Products held in Federally licensed warehouses must be properly cared for by the warehouseman so as to preserve their quality and condition, or the warehouseman must compensate the holder of the warehouse receipt for losses suffered, except when loss results due to no fault of the warehouseman. Because the warehouse receipts are frequently used for financing purposes, every effort is directed to make them unquestioned collateral. As such, they are being accepted and demanded by increasing numbers of lending agencies -- both private and governmental.

Administration of the Act

The United States Warehouse Act as passed in August 1916 provided for storing cotton, grain, wool, and tobacco only. Prior to that time, a major problem of the farmer was how to store a crop and at the same time have it in such condition that he could readily get a loan on it at the bank. His problem was met in part through privately owned warehouses. But the system of unsupervised warehouses then in operation was open to a great many loose practices and abuses. Because of financial failures, fires, and illegal dealings -- and no bond, insurance, nor other protection to apply to the products -- heavy losses were sustained. Besides many receipts gave such meagre information and failed to attach responsibility to the warehouseman that they were worthless as collateral.

The passage of the Warehouse Act made it possible for the farmer to have a safe place where he could take his crop, store it, and get a warehouse receipt that would be accepted by his bank.

An amendment to the Act in 1923 enlarged the scope of the Act to apply to any agricultural product that the Secretary of Agriculture might consider properly storable thereunder. In addition to the four products originally eligible for storage in Federally licensed warehouses, the following are now eligible: nuts, dry edible beans, broomcorn, cottonseed, bluegrass seed, alfalfa and bent grass seed, dried fruit, sirup, canned fruits and vegetables, cold-pack fruit, and cherries in brine.

Amendments to enlarge the penalty sections and the scope of usefulness of the Act are now pending in Congress.

Warehouse receipts carefully controlled

Under the terms of the Act, the Federal warehouse receipt must contain certain information not generally found in the usual form of warehouse receipt. It is in the field of agricultural commodity collateral just about what a Government bond is in the field of securities. It positively represents the product in storage, by weight, condition, and grade except when the depositor requests the omission of grade from a receipt issued for a product the identity of which is preserved while in storage. Back of each receipt is the warehouseman's financial responsibility and bond in an amount fixed by the Secretary of Agriculture.

Strict control is exercised in issuing receipts and in seeing that all receipts are accounted for. No warehouseman can obtain receipts except upon orders approved by the Department and from but one printer. The receipts are printed on paper especially prepared for the Department. The paper manufacturer is under contract with the Government and under bond to guarantee against

improper disposition of any of this paper. The printer also is under contract with the Department and is bonded to guarantee that receipt forms or blanks will be issued only to persons entitled to receive them. A register is kept of all receipt forms that are shipped by the printer, and these forms must be accounted for by each warehouseman receiving them.

Investigation and supervision

No warehouseman is obliged to become licensed under the Warehouse Act, since the law is not mandatory. The Secretary, on the other hand, need not license everyone who applies. A careful investigation is made of all applicants, with a view to licensing only those competent to operate a warehouse in accordance with the terms of the Warehouse Act and the Secretary's regulations. The investigation covers facilities, reputation, and financial responsibility of the applicant, and trained personnel who can properly handle and care for commodities that might be offered for storage. To maintain the negotiability of receipts it is essential that licensed warehouses be manned by an honest personnel competent to sample, inspect, grade, and weigh stored products. This is particularly necessary with products that might deteriorate rapidly while in storage unless they receive proper care.

After a warehouse has been licensed, a rigid system of supervision is maintained. Close tab is kept on all warehousemen licensed -- to see that they comply with the law and with the regulations of the Secretary of Agriculture.

Careful investigation of prospective licensees, and supervision of every licensee, particularly of the warehousemen, has gone a long way toward avoiding serious losses to depositors. As a result of the rigid investigation and supervision, no losses -- insofar as the Department is informed -- have been sustained by depositors in Federally licensed warehouses. The value of produce stored in these warehouses during the past 12 years has frequently exceeded a billion dollars annually. And yet, during the 23 years in which the Act has been in effect, even the losses paid by bonding companies have aggregated less than \$50,000. This contrasts sharply with conditions prior to the passage of the Act, when frequent and sometimes large losses were incurred despite charges paid. Even now, losses to depositors of agricultural products in warehouses not Federally licensed sometimes run into substantial figures. While the loss ratio has been negligible under the Warehouse Act, during the period of its administration storage charges have materially decreased. A direct result of the Act then is that while the farmer has received the best type of collateral in history, in the same period his losses and storage costs have been materially reduced.

Increased Demand for Service

Each year finds the service covering wider territory. During 1938 the increase in licensed grain-storage capacity was about 25 percent, and that for cotton storage was about 35 percent. At the end of May 1939 cotton storage capacity licensed was sufficient to permit approximately 9 million bales to be stored at one time. The licensed capacity for storing canned fruits and vegetables increased about 250 percent during the calendar year 1938, and wool storage capacity gained about 400 percent.

During the first 12 years, licensing of grain elevators made rather slow progress because of resistance in the trade and particularly at terminal markets. Until about 2 years ago, Omaha was the only terminal market at which grain elevators were Federally licensed. Since then, however, licensing of grain elevators has progressed so that at St. Louis and Chicago practically all public storage elevators are operating under the Federal Act, and Buffalo is substantially increasing its Federally licensed storage capacity to care for the 1939 crop. In the grain producing areas and at sub-terminal points, more and more grain warehouses are licensed each year.

Wide use by Federal agencies

Governmental agencies have come more and more to rely on Federal warehouse receipts as security for loans. Each year such agencies as the Crop Insurance Corporation, the Commodity Credit Corporation, and the Federal Surplus Commodities Corporation rely increasingly on the Federal warehouse receipt. Under the Commodity Exchange Act, boards of trade are obliged to recognize the Federal receipt in connection with futures contracts. The Federal Reserve Banks generally have shown a preference for Federal warehouse receipts. Many commercial banks will not accept any other form of receipt. Most Federal lending agencies will accept receipts issued under the Federal Warehouse Act without question while it is not at all uncommon for them to impose certain terms upon non-federally licensed warehousemen before their receipts will be accepted.

All parties are protected

The Federal Warehouse Act gives the producers of agricultural products, the producers' cooperative associations, the merchandiser of agricultural products, and the financier of these interests, a form of warehouse receipt that protects all parties. It also provides a sampling, weighing, and inspection service that gives to the producer, the merchandiser, and the bank, definite and responsible information relative to the quantity and quality of the products covered by warehouse receipts. It further assures these interests that the products, while stored under Federal receipts, will be properly cared for or just compensation will be made for losses sustained and for which the warehouseman is legally liable.

I N F O R M A T I O N

Marketing Information Section

Marvin M. Sandstrom In Charge

The purpose of the information activities is to give timely, adequate, and effective dissemination to material that originates within the Service, and to distribute the information through the media best adapted for reaching groups that have different requirements.

A major role of the Agricultural Marketing Service is fact-finding and fact-disseminating. In such an agency, the preparing, editing, disseminating, and coordinating of basic information plays an important part in contributing to an improved agricultural economy and an enlightened public. Every attention is given to acquainting farmers, distributors, and consumers with the services available to them.

The activities of the Marketing Information Section may be classified as (1) editorial, (2) general information, and (3) related research. General informational activities include assistance given to marketing specialists in the preparation of their material for publication, development and coordination of press and radio material disseminated from the 309 field offices and from Washington, initiation and preparation of material for popular distribution, and a "spot" information service provided by correspondence, telephone, telegraph, and in person.

Origin of Work

The informational activities of the Agricultural Marketing Service are the direct outgrowth of the information service established within the Bureau of Agricultural Economics in 1922. At that time persons who were working on economic information for distribution to the general public were brought together in one service unit under the direction of a specialist in information.

Numerous changes have been made since 1922 in the type of services performed. Major changes were made in 1937 when duplicate reports were eliminated, new reports developed, and old reports revitalized in order to interpret and present more adequately and effectively the salient facts originating within the Bureau. A radio specialist was added to the staff to further develop and coordinate expanding work in this field.

Effective July 1, 1939, the Division of Economic Information of the Bureau of Agricultural Economics was divided with a part of the staff forming the nucleus of the Marketing Information Section of the Agricultural Marketing Service.

Editorial

Whenever groups of workers with different training are engaged in the preparation of reports for public dissemination and wherever services are performed for economic groups, there is a need for editorial service and of coordination.

The editorial work involves the editing and final preparation of manuscripts of the Service offered for printing by the Department, the editing of special reports and speeches for processing (mimeographing, multilithing, multigraphing, etc), and the review of technical and popular articles submitted by the specialists for outside publication. Its purpose is to assure accuracy and adequacy of the information issued with due regard to (1) Departmental and organizational policy and regulations, (2) coordination of subject matter with that of other Bureaus in the Department, and (3) the medium to be employed and groups to be served.

All manuscripts submitted for publication in the several printed and mimeographed series are reviewed as to subject matter in relation to the intended purpose of the publication, to other work of the Service, and to work of the Department. When necessary adjustments have been made, the manuscripts are edited for adequate and effective treatment, general policy, and grammatical and rhetorical form. Selection is made of illustrative material in the form of charts or photographs. Later the proofs are read, the layout is prepared, the distribution plans made, and final distribution completed.

The marketing specialists are assisted in the preparation of their material -- to make it more readable, more understandable, more effective. Adjustments are suggested to the subject-matter specialists. No material is issued without final approval of the specialists.

General Information

Information based upon the work of the organization and intended for public dissemination is cleared through the Marketing Information Section. The material is reviewed for accuracy, adequacy, and style, for release as bulletins, reports, handbooks, service and regulatory announcements, periodicals, releases, etc. The information is intended for farmers, consumers, businessmen, marketing specialists, educators, newspapers, etc. Mailing lists are maintained for those who request specific reports, and the lists are circularized each year in order that there will be no waste nor duplicate distribution. Attention is given in a supervisory and coordinating capacity to material originating in and disseminated by the field offices.

Salient facts are presented by radio, press, graphs, and exhibits. Major reports are summarized for press and radio use. A laboratory is maintained for obtaining pertinent photographs and for duplicating graphic material. Exhibits are planned for important expositions and fairs.

An active "spot" information service is provided for those who write, telephone, telegraph, or call in person. Copies of reports, bulletins, regulations, etc., are readily accessible. Such activities are vital in a fact-disseminating, service agency.

Modern methods of disseminating material are being increasingly used, notably the radio, by which crop and livestock market information can be sent directly into the farm home as fast as conditions change in the market. Feed crop and market reports have been broadcast regularly for approximately 20 years. But in the past few years, coincident with the decided increase in the number of farm homes having radios, the number of stations carrying such reports has materially increased. According to the information obtained through questionnaires sent out in early 1939 to each of the 726 radio stations in the United States, nearly one-half of the total number of stations are broadcasting daily market information -- most of which is gathered and issued by the Agricultural Marketing Service. A radio specialist develops and coordinates this work, in Washington and in the field.

Material for scheduled programs and daily market flashes is prepared regularly for nationwide and regional networks, and for local stations. As many radio stations are located a considerable distance from terminal markets, they are supplied with

authentic market reports through arrangements made with major press associations to carry these reports to the stations they serve. Wherever possible, arrangements are made for local broadcasts to originate in the field office, with -- if possible -- the market reporter talking directly to farmers. From Washington, a "swing of the markets" program is given nationwide distribution. This is a daily 4-minute market digest carried on the National Farm and Home Hour by more than 100 radio stations. The digest consists of market comments and prices on butter, eggs, corn, wheat, cotton, livestock, and selected fruits and vegetables; the comments also include prices and other information obtained at seasonally important shipping points.

Research

Research work in information is directed toward developing plans and methods for the most adequate and effective way of informing the various groups in the national economy of the facts developed in the organization, of the services available, and how these services may be used to the best advantage. This involves keeping abreast of new techniques in writing, in media, and in the most rapid and effective means of disseminating the information. It also involves methods of testing the adequacy and effectiveness of forms and media used.

A study of listener-interest was made in 1938 in Michigan, Iowa, Indiana, Illinois, and Wisconsin to ascertain the use being made of market news broadcasts and to obtain information that would enable the Bureau and radio stations to give farmers the market information they need and want in the daily conduct of their businesses.

Periodicals

In addition to the handling of copy for releases, reports, and printed bulletins, the Marketing Information Section gathers and prepares copy for two periodicals: Crops and Markets, and Marketing Activities.

Crops and Markets is a printed monthly publication of the Department of Agriculture. It carries the monthly crop report, and market statistics on livestock, meats, wool, dairy and poultry products, grain, feed and seed, and cotton. Included are prices received by farmers, information on agricultural income, and special material of a marketing and economic nature. Distribution is limited by public resolution 57 to Department employees, staff members of agricultural colleges, cooperators, agricultural libraries, and the press. Copies may be obtained regularly from the Superintendent of Documents, Government Printing Office, at a subscription price of \$1 per year (foreign rate \$1.50).

Marketing Activities is a processed publication issued about the tenth of each month. It is designed to keep marketing officials and marketing specialists -- and the general public -- informed as to current service, technical research, and related projects in the field of marketing. Requests for the publication should be made to Agricultural Marketing Service. (Prior to July 1939, Marketing Activities had been issued as a weekly since March 1921. It was designed to serve as a medium for the exchange of marketing information between marketing specialists of the Federal and State departments of agriculture. In addition to the "exchange" information, Marketing Activities now carries special articles dealing with the various phases of marketing -- standardization, inspection, packing, grading, labeling, handling, market reporting, market statistics, etc.).

Copy is prepared for the P & S Docket, a monthly report of new dockets issued and action taken on pending cases under the Packers and Stockyards Act.

A house organ, "The AMS News" is prepared for distribution to staff members only. It is designed particularly to keep the field staff informed of activities within the Service and of related Departmental work.

A list of crop and market reports issued regularly by the Agricultural Marketing Service may be obtained upon request to the Marketing Information Section, Agricultural Marketing Service, U.S.D.A., Washington, D.C.

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B U S I N E S S A D M I N I S T R A T I O N

Division of Business Administration

F. J. Hughes In Charge

The Division of Business Administration is the central organization of the Bureau responsible for all operating procedure. The work is handled through the sections of Budget and Accounts, Personnel, Procurement, Machine Tabulation, Mails and Files, Telegraph, Vise^r, and Technological Investigations. These are service units for the various administrative divisions of the Agricultural Marketing Service on matters relating to the obtaining and handling of personnel, fiscal, and accounting matters, obtaining supplies and equipment, the rental and maintenance of quarters, the routing and clearance of correspondence, and the establishment and conduct of the necessary procedure associated with these activities.

The Business Manager and his staff also serve as consultants to the administrative office and the division leaders on matters of policy and procedure. Joint operating committees are maintained in certain cities to handle operating problems of general interest to all units located at one point in the city.

Business Administration

Fiscal and accounting activities

A Section of Budget and Accounts handles all fiscal and accounting activities of the Service. It is divided into four units, namely, bookkeeping and accounts, administrative audit, budget estimates and reports, and payroll.

The Section is primarily responsible for the control of all appropriated, transferred, and trust funds allotted to or received by the Service for direct expenditure. It passes upon the legality and the propriety of all payments made from funds of the Agricultural Marketing Service involving the audit of approximately 40,000 vouchers yearly. The work involves the control of time and leave records and the preparation of payrolls for all employees. Responsibilities also include the preparation of estimates and budgets for presentation to the Office of Budget and Finance, Bureau of the Budget and to Congress. All letters of authority issued in the Service are carefully examined to see that they are issued in accordance with the fiscal laws, Decisions of the Comptroller General, regulations of the Department of Agriculture and administrative regulations issued by the Agricultural Marketing Service.

Central accounting records and controls are maintained for all administrative units of the Agricultural Marketing Service. All contacts with the Office of Budget and Finance, the Bureau of the Budget, the General Accounting Office, and the Treasury Department are made through this office.

Personnel administration

The Personnel Section is responsible for the general personnel administration of the organization, involving recruitment, selection, appointment and orientation of new employees; the classification of positions, determination of qualifications of new employees for appointment and present employees for promotion and reassignment, and placement of new and present employees in proper and adequate work assignments; the improvement of employee relations and development of morale, handling of employee complaints, and preparation of recommendation for disciplinary actions in cases of misconduct, infraction of the regulations, etc. Safety measures are promoted among employees for their protection and for the efficiency of the Service. New procedures, policies and techniques for effective personnel administration are developed, also new programs of personnel activity.

Procurement

A Procurement Section handles all matters incident to the procurement of equipment, furniture, supplies, stationery, and services, involving the preparation and issuance of purchase orders, reviewing and certifying vouchers for payment, analysis and preparation of proposals for bids and recommendations for awards, and reviewing and approving supplies requisitions and shop requests. The work further involves the initiation and handling of leases covering commercial space; the maintenance of contracts with the proper Government agencies on matters relating to Federally assigned space. Handled also are all contracts for service incident to general operation; the maintenance of proper records of nonexpendable and semiexpendable property; and miscellaneous matters relating to procurement of supplies, equipment, furniture, space, general operating services and maintenance of quarters.

Other operating activities

A Section of Mails and Files is responsible for the receiving, handling, recording and delivery of all mail received in the Service; the collecting, handling, and dispatching of all outgoing mail; and the filing and maintaining of permanent records on all correspondence and related material received and dispatched.

A Vise Section reviews all outgoing correspondence prepared in the various divisions to see that it conforms to approved style and policy, and is in accordance with established procedure.

A Technological Investigations Section plans and develops various types of apparatus and laboratory equipment necessary for the proper conduct of the technical responsibilities of the Agricultural Marketing Service incident to the standardization, inspection, and grading of agricultural products and related activities. In some instances various types of appliances and equipment are constructed and investigations and experiments in the technological laboratory and in the field are conducted. As a result of these experiments and investigations new equipment and devices, and improvements in equipment are effected.

A Machine Tabulating and Computing Section is engaged in the mechanical tabulation of data for the various Divisions.

A Telegraph Section handles the activities connected with the operation of the Service's leased wire market news system. This involves the operation of more than 7,500 (airline) miles of leased wire manned by a corp of 75 operators located in Washington and in 42 field offices. Over the leased wire system is transmitted the market news information disseminated by the Agricultural Marketing Service.

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REGULATORY LAWS
administered by
AGRICULTURAL MARKETING SERVICE

Act of August 11, 1916; 39 Stat. 482 (U. S. Grain Standards Act). To regulate interstate traffic in grain. Authorizes the Secretary of Agriculture to establish official standards for grain and requires their use in interstate and foreign commerce when such grain is sold by grade.

Act of August 11, 1916; 39 Stat. 486 (U. S. Warehouse Act). Amended July 25, 1919; February 23, 1923; and March 2, 1931. Provides for licensing warehouses for the storage of agricultural products. Thorough investigations are made of the integrity of the warehouseman, the physical structure of the warehouse, and the quantity and grade of products stored therein so that the receipts issued by such warehouseman are accepted without question as collateral for loans.

Act of August 11, 1916; 39 Stat. 476 (U. S. Cotton Futures Act). Amended March 4, 1919; May 31, 1920; February 26, 1927. Requires the use of Federal standards in futures trading in cotton. Provides that cotton tendered in settlement of futures contracts must first be classed by officers of the Government on the basis of the standards established by the Department.

Act of August 31, 1916; 39 Stat. 673 (U.S. Standard Container Act). Amended June 11, 1934, 48 Stat. 930. To establish standards for Climax baskets of two-, four-, and twelve-quart sizes, as well as standard containers for small fruits, berries, and vegetables.

Act of August 24, 1912; 37 Stat. 506 (Federal Seed Act). Amended August 11, 1916 and April 26, 1926. To prohibit fraudulent misbranding of seed in interstate commerce. Requires that imported seed (approximately 20 kinds) meet certain standards as to purity, germination, and weed seeds. Imported alfalfa and red clover seeds are stained to indicate origin and relative adaptability.

Act of May 23, 1908; 35 Stat. 254 (Dairy Exports Act). To promote commerce with foreign countries in connection with dairy products by preventing the exportation of such products unless the same shall have been inspected and certified.

Act of August 15, 1921; 42 Stat. 159 (Packers and Stockyards Act). Amended May 5, 1926; May 17, 1935 (Agricultural Appropriation Act); and August 14, 1935 (Live Poultry Amendment). Provides for the regulation and correction of unfair practices, including monopolies, on the part of packers engaged in interstate commerce in the purchase of livestock and the sale of meat and other packing house products. Authorizes the Secretary to prescribe reasonable rates for services of stockyard companies, livestock commission firms, and poultry licensees, and to correct unfair, unjustly discriminatory, or deceptive practices or devices on the part of stockyard companies, registrants, and poultry licensees.

Act of March 4, 1923; 42 Stat. 1517 (U. S. Cotton Standards Act). To regulate transactions in American cotton in interstate and foreign commerce; requires the use of the official cotton standards and linters standards in all transactions in such commerce wherein any standard descriptions are used. Provides for the sale of copies of the standards to the public. Provides for classification of cotton and cotton linters, and for the licensing of classers.

Act of March 3, 1927; 44 Stat. 1355 (Produce Agency Act). To prevent agents receiving and selling, on behalf of shippers, fruits, vegetables, melons and dairy and poultry products in interstate commerce failing truly and correctly to account therefor. The Act also forbids the destroying or dumping of such produce without good and sufficient cause and the making of false reports regarding the reception and disposition of such produce.

Act of March 3, 1927; 44 Stat. 1372 (Cotton Grade and Staple Statistics Act). Amended April 13, 1937. To collect and publish statistics of the grade and staple length of cotton. Provides for classification and market news services to producer groups organized for cotton improvement.

Act of May 21, 1928; 45 Stat. 687 (U. S. Standard Container Act). To fix standards for hampers, round stave baskets, and splint baskets for fruits and vegetables.

Act of May 17, 1928; 45 Stat. 593. (Wool Standards Act). Authorizes the Secretary of Agriculture to use certain funds for wool standards and for other purposes. (Funds now exhausted). Authorizes reasonable charges for practical forms of grades of wool.

Act of January 14, 1929; 45 Stat. 1079. (Tobacco Stocks and Standards Act). Amended July 14, 1932; and August 27, 1935. Provides for collection and publication of statistics of tobacco. Authorizes Secretary of Agriculture to establish standards for the classification of tobacco.

Act of June 10, 1930; 46 Stat. 531 (Perishable Agricultural Commodities Act of 1930). Amended April 13, 1934; June 19, 1936; August 20, 1937; June 23, 1938. To suppress unfair and fraudulent practices in the marketing of fresh fruits and vegetables in interstate and foreign commerce, among such practices being rejection or failure to deliver without reasonable cause, the making of a false or misleading statement for a fraudulent purpose, failure truly and correctly to account, and misrepresentation of the grade, quality or condition of fruits or vegetables. Requires all commission merchants, dealers, and brokers who handle fresh fruits and/or vegetables, in interstate or foreign commerce, to secure a license from the Department of Agriculture.

Act of June 10, 1933; 48 Stat. 123 (Export Apple and Pear Act). To protect the reputation of American-grown apples and pears in foreign markets, and to prevent deception or misrepresentation as to the quality of such products. Requires inspection and certification by the U. S. Department of Agriculture.

Act of August 23, 1935; 49 Stat. 731 (Tobacco Inspection Act). To eliminate speculation, manipulation, and control of transactions involving the sale of tobacco at auction as commonly conducted at auction markets. Provides for market news and a mandatory and free inspection service at designated auction markets.

Act of June 24, 1936. (Peanut Statistics Act). Amended May 12, 1938. Provides for collection and publication of statistics of peanuts.

Farm Products Inspection Act (authority provided in Agricultural Appropriation Act). Carries authority to inspect and certify to the class, quality and condition of perishable farm products, at cost.

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